ACOUSTICAL ANALYSIS REPORT

Donahue Drive Project
Hillsdale Road and Donahue Drive,
Valle De Oro, California 92019

County of San Diego Tentative Map No. 5518;
Environmental Log No. 06-14-046

Prepared For

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Job #A70114N2

August 28, 2007

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County of San Diego
Department of Planning and Land Use
c/o Hanna Maria LLC
Attention: Kamil Salem
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SUBJECT: RESPONSE TO FIRST ITERATION REVIEW OF PROJECT; DONAHUE DRIVE PROJECT, HILLSDALE ROAD AND DONAHUE DRIVE COUNTY OF SAN DIEGO: TENTATIVE MAP NO. 5518, LOG 06-14-046

This letter is in response to your letter of June 22, 2007, concerning the first iteration review of the above-referenced project. This letter will reference the location of each response to the comment(s) or requested change(s) indicated on your letter.

Italics are added to indicate County of San Diego Staff comments.

REVISIONS AND ADDITIONAL INFORMATION:

Noise Study

Staff has completed the review of the Acoustical Analysis Report prepared by Eilar Associates. Staff recommends additional information and minor edits to the analysis and documentation, as detailed below. Staff will be able to provide final conditions when the recommended comments are implemented in the next submittal.

1. *Update Table 4 to be consistent with the TNM results located in Appendix B. Receptor values located on Appendix B is not consistent with the tables addressed within the noise report. Although the differences between values are approximately 0-1 dBA, TNM results shall reflect tables and noise analysis within the noise report.*

Response: Table 4 has been updated with the correct receptor values from Appendix B.

2. *On Appendix B, Receivers & Sound Levels table, the columns titled "With Barriers" and "Without Barriers" are incorrect. These column titles need to be switched.*

Response: The column titles on Appendix B, "With Barriers" and "Without Barriers" were switched.

3. *Project is an application consisting of a 7 lot residential subdivision. Noise report identifies the project as a "subdivision of 6 lots". Please revise the noise report to describe the project as a 7 lot subdivision (and update the noise report accordingly).*

Response: The noise report was updated to identify the project as a 7 lot subdivision.

4. *On Section 2.2 Project Description: Provide a discussion regarding Lot 7. Specify that Lot 7 occupies an existing residential lot. Although the single-family home on Lot 7 is considered an existing residence and subject to existing conditions, Lot 7 is part of the project and shall be addressed.*

Response: Section 2.2 Project Description was updated to address Lot 7.

Please call if you have any questions or require additional information.

EILAR ASSOCIATES, INC.

Nozomi Kamiya

Nozomi Kamiya, Acoustical Consultant

TABLE OF CONTENTS

FIGURES

APPENDICES

1.0 EXECUTIVE SUMMARY

The proposed project, known as the Donahue Drive project, consists of the subdivision of a legal parcel into 7 residential lots. Since Lot 7 is occupied by an existing residential structure, this report will address Lot 1 through 6 only. These lots range in size from 0.50 to 0.55 net acres. The project site is located at the southwest corner of the intersection of Hillsdale Road and Donahue Drive, within the Community of Valle de Oro, in the County of San Diego, California.

A review of the surrounding developments in the community, along with the geographic and topographic site conditions show that the primary noise sources in the vicinity of the project site are from automobile and truck traffic traveling on Donahue Drive and Hillsdale Road. No other noise source in the vicinity of the project site is considered significant.

The current calculated on-site traffic noise level calculated at approximately 50 feet south of the centerline of Hillsdale Road within the project site is 67.1 Community Noise Equivalent Level (CNEL). Due to an increase in traffic volumes on Hillsdale Road, the calculated future (2030) traffic noise at the same location is expected to increase to 68.4 CNEL.

The County of San Diego Noise Element requires exterior noise impacts from traffic and/or other sources to be 60 CNEL or below at residential outdoor usable areas. Calculations show that without mitigation, future traffic noise levels at the center of the proposed residential pads will range from 54.6 CNEL at Pad 2, located at the southwest corner of the property, to 61.6 CNEL at Pad 5, located at the northern perimeter of the property. Mitigation is therefore required and can be achieved by constructing a combination of a 2-foot high and 2.5-foot high sound attenuation barrier along the northern perimeter and a portion of the eastern perimeter of the project site. Please refer to Section 5.1 for the detailed results of the calculation and the location of the recommended mitigation. The sound attenuation barrier must meet the construction criteria defined in Section 5.2 Sound Attenuation Barrier.

The County of San Diego Noise Elements, as well as other agencies as HUD, also requires exterior-to-interior nose analysis to be conducted in the future for proposed building structures, if exterior façade impacts exceed the minimum 60 CNEL. Calculations show that with the recommended sound attenuation barrier in place, future traffic noise levels at the secondary levels at the center of the proposed residential pads will range from 56.0 CNEL at Pad 2 to 63.0 CNEL at Pad 5 and 6. Therefore a detailed exterior-to-interior analysis will be required when building plans become available. Please see Section 5.4 for the detailed calculation and results.

2.0 INTRODUCTION

This acoustical analysis report is submitted to satisfy the acoustical requirements of the County of San Diego as directed by the project scoping letter for a Tentative Map 5518. Please refer to Appendix A: County of San Diego Scoping Letter dated December 29, 2006. The purpose of this analysis is to assess current and future noise impacts from nearby roadway traffic, as well as to identify project features or requirements necessary to achieve noise levels of 60 CNEL or less at exterior outdoor use areas (common outdoor use areas, decks and private yards), in compliance with the County of San Diego Noise Element.

All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A-weighting to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the symbol L_{EQ}, for a specified duration. The CNEL is a 24-hour average, where sound levels during evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dB weighting, and sound levels during nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dB weighting. This is similar to the Day-Night sound level, L_{DN}, which is a 24-hour average with an added 10 dB weighting on the same nighttime hours but no added weighting on the evening hours. Sound levels expressed in CNEL are always based on A-weighted dB. These metrics are used to express noise levels for both measurement and municipal regulations, for land use guidelines, and for enforcement of noise ordinances. Further explanation can be provided upon request.

2.1 Project Location

The project site is located at the southwest corner of the intersection of Donahue Drive and Hillsdale Road within the Community of Valle de Oro, in the County of San Diego, California. The assessor's parcel numbers (APNs) for the property are 517-020-90 & -91, and the overall property is trapezoid in shape. The project property is currently zoned RR2 and the neighboring land use in the proximity of the project site is rural residential. The project property is expected to remain zoned for RR2 and the neighboring land will remain zoned for rural residential use. The project location is shown on the Vicinity Map, Figure 1, following this report. An Assessor's Parcel Map, Satellite Aerial Photograph, Topographic Map, and Planned Land Use Map are also provided as Figures 2 through 5.

2.2 Project Description

The project proposes the subdivision of a legal parcel into 7 residential lots. Lot 7 occupies an existing residential lot with an existing residence, and is subject to existing conditions. For the purposes of this report, Lot 7 will not be included the analysis.

The 6 lots range in size from 0.50 to 0.55 net acres or 21,792 to 23,862 square feet. The site is located on a slope, its maximum height at the northwest corner of the property to the lowest point at the southeast corner of the property, with a maximum elevation difference between the highest and lowest point of 42 feet. A driveway leading in from Donahue Drive, parallel to Hillsdale Road is scheduled to be constructed. Lots 1 through 6 are positioned from the southeast corner of the property, counterclockwise around the drive way, exposing Lots 1, 4, 5, and 6 to Donahue Drive and/or Hillsdale Road. All pads except for Pad 6 have a lower elevation compared to its surrounding roadways.

3.0 ENVIRONMENTAL SETTING

3.1 Existing Noise Environment

The primary noise sources in the vicinity of the project site are from automobile and truck traffic traveling on Donahue Drive and Hillsdale Road. No other noise source in the vicinity of the project site is considered significant.

3.1.1 Vehicle Traffic Noise

The Average Daily Trips (ADT) as well as roadway classification for the following roadways described in this section was obtained with assistance from Mr. Richard Chin, Associate Transportation Specialist at the Department of Transportation Planning of the County of San Diego. Other information associated with each roadway is summarized in Table 1: Overall Roadway Traffic Information. Detailed roadway information can be found in Appendix B: Relevant Analysis and Test Results.

During the on-site noise measurement inspection, Donahue Drive was observed as a two-lane, two-way road running north-south along the eastern perimeter of the proposed project site, its curb-to-curb paved roadway width measured approximately 40 feet, and had a posted speed limit of 25 mph. According to the current County of San Diego Circulation Element, this roadway is classified as a Local Public Road. Please refer to Appendix C: County of San Diego Roadway Classification Changes. According to the website of Department of Transportation, San Diego Association of Governments (SanDAG) at http://maximus.sandag.org/tfic/trfic30.html, it currently carries a traffic volume of approximately 1,000 ADT.

Perpendicular to Donahue Drive is Hillsdale Road. During our on-site noise measurement inspection, Hillsdale Road was observed as a two-lane, two-way road running east-west along the northern perimeter of the proposed project site, and its curb-to-curb paved roadway width measured approximately 80 feet. According to the County of San Diego Scoping Letter, this roadway is classified as a Collector Road and will be modeled at a design speed of 55 mph. According to the website of Department of Transportation, San Diego Association of Governments (SanDAG) at http://maximus.sandag.org/tfic/trfic30.html, it currently carries a traffic volume of approximately 5,000 ADT on the west side of Donahue Drive, and 4,000 ADT on the east side of Donahue Drive.

Table 1. Overall Roadway Traffic Information

Roadway Name	Classification	Speed Limit (mph)		ADT (vehicles)		Truck Percentage (%)	
		Current	Future (year 2030)	Current	Future (year 2030)	Medium	Heavy
Donahue Drive	Local Public Road	25		1,000	1,000	0.5	0.5
Hillsdale Road (West of Donahue Drive)	Collector	55		5,000	6,600	2.0	1.0
Hillsdale Road (East of Donahue Drive)				4,000	5,000		

Current truck percentages for medium and heavy trucks traveling on all contributing roadways, as listed in Table 1, were obtained through studies based on aerial photographs showing neighboring and surrounding land use, roadway classification, and our professional experience during on-site observations. The current noise level at the project site 50 feet south of the centerline of Hillsdale Road, calculated using the current traffic information, is 67.1 CNEL. Please refer to Appendix A: Relevant Analysis and Test Results for further roadway details and projected future ADT traffic volumes. A detailed report on the future traffic forecast for this area can be found in Section 3.2 within this report.

3.1.2 Measured Noise Level

An on-site inspection and traffic noise measurement were made in the afternoon of Tuesday February 6th, 2007. The weather conditions were as follows: cloudy skies, 65° F with low humidity. The "one-hour" equivalent measurement was made at approximately 50 feet south of the centerline of Hillsdale Road, near the northwest corner of the proposed project site. The microphone was positioned approximately 5 feet above the existing grade, mounted on a tripod. Traffic volumes for Donahue Drive and Hillsdale Road were recorded for automobiles, medium-size trucks, and large trucks during the measurement interval.

Ongoing construction of a residential structure was present approximately 600 feet east from the measurement location. An ambient noise measurement was taken for the noise generated from this construction site for duration of 5 minutes, resulting in 42.0 dBA L_{EQ} which was considered to have no interference to the traffic noise measurement.

After a continuous 15-minute equivalent sound level measurement between 10:40 am and 10:55 am, there were no remarkable changes in L_{EQ}, and the result was recorded. The measured noise level was 64.5 dBA. The complete tabular listing of all traffic data recorded during the on-site traffic noise measurement can be found in Appendix A: Relevant Analysis and Test Results.

Table 2. On-Site Noise Measurement Conditions and Results	
Date	Tuesday, February 6th, 2007
Time	10:40 a.m. – 4:55 a.m.
Conditions	Cloudy skies, winds at 0 – 2 mph from the south, temperature in the mid-60's with low humidity
Measured Noise Level	64.5 dBA L_{EQ}

3.1.3 Calculated Noise Level

Noise levels were calculated for the site using the methodology described in Section 4.1 with the location, conditions, and traffic volumes counted during the noise measurements. The calculated noise levels (L_{EQ}) were compared with the measured on-site noise level to determine if adjustments or corrections (calibration) should be applied to the traffic noise prediction modeler, Traffic Noise Model (TNM). Adjustments are intended to account for site-specific differences, such as reflection and absorption, which may be greater or lesser than accounted for in the model.

Using information collected during the site visit along with various sources of topographical information, a model of the project site was constructed in the Traffic Noise Model (TNM) software. The computer model, with traffic volumes and weather conditions observed during the site visit yielded a noise level of 64.4 dBA at the measurement location. The discrepancy of 0.1 dBA is

considered well within tolerance. The TNM model is thus considered a reasonable representation of the noise environment at the project site. Please refer to Table 3 for more details.

Table 3. Calculated versus Measured Traffic Noise Data				
Roadways	**Measured**	**Calculated**	**Difference**	**Correction**
Hillsdale Road	64.5 dBA L_{EQ}	64.4 dBA L_{EQ}	0.1 dB	None applied

3.2 Future Noise Environment

3.2.1 Vehicle Traffic Noise

SanDAG and the proposed San Diego County General Plan for 2020 document different traffic volumes for the sections of Hillsdale Road and Donahue Drive in the vicinity of the project. According to the SanDAG website, by the year 2030, the traffic volume for Hillsdale Road is expected to increase to 6,000 ADT (west of Donahue Drive), and to 5,000 ADT (east of Donahue Drive). Donahue Drive is expected to remain at 1,000 ADT. According to the proposed San Diego County General Plan for 2020, by the year 2030, Hillsdale Road is expected to carry a traffic volume of 6,600 ADT (west of Donahue Drive), and 3,100 ADT (east of Donahue Drive). No future traffic volumes for Donahue Drive were available. To ensure a worst-case scenario, the following traffic volumes were used for this project: 6,600 ADT on Hillsdale Road (west of Donahue Drive); 5,000 ADT on Hillsdale Road (east of Donahue Drive); and 1,000 ADT on Donahue Drive.

According to the proposed San Diego County General Plan for 2020, the classification of the section of Hillsdale Road and Donahue Drive in the vicinity of the project site will remain the same as the existing classification of Collector and Local Public Road, respectively. The board is in consensus regarding the change without any noted disagreement.

Due to this increased roadway usage in the vicinity of the project site, the future noise level at the project site 50 feet south of the centerline of Hillsdale Road is expected to increase to 68.4 CNEL by the year 2030 from 67.1 CNEL.

The same truck percentages from the current traffic conditions were used to calculate this future noise level. All roadway information including roadway classification, speed limit, alignment and roadbed grade elevations are expected to remain the same for these sections of roadways. Please refer to Table 1 for a summarized listing of this roadway information. For further roadway details and projected future ADT traffic volumes, please refer to Appendix B: Relevant Analysis and Test Results. Please also refer to Appendix C: County of San Diego Roadway Classification Changes.

4.0 METHODOLOGY AND EQUIPMENT

4.1 Methodology

4.1.1 Field Measurement

Typically, a "one-hour" equivalent sound level measurement (L_{EQ}, A-Weighted) is recorded for at least one noise-sensitive location on the site. During the on-site noise measurement, start and end times are recorded, vehicle counts are made for cars, medium trucks (double-tires/two axles), and

heavy trucks (three or more axles) for the corresponding road segment(s). Supplemental sound measurements of one hour or less in duration are often made to further describe the noise environment of the site.

For measurements of less than one hour in duration, the measurement time is long enough for a representative traffic volume to occur and the noise level (L_{EQ}) to stabilize; 15 minutes is usually sufficient for this purpose. The vehicle counts are then converted to one-hour equivalent volumes by using the appropriate multiplier. Other field data gathered includes measuring or estimating distances, angles-of-view, slopes, elevations, roadway grades, and vehicle speeds. This data was checked against the available maps and records.

4.1.2 Roadway Noise Calculation

The Traffic Noise Model (TNM), Version 2.5 program released by the U.S. Department of Transportation was used for calculation of all traffic models in this report. TNM is able to calculate the daytime average Hourly Noise Level (HNL) from such traffic data as road alignment, elevations, lane configurations, projected traffic volumes, estimated truck mix percentages, and vehicle speeds. The HNL is equivalent to the L_{EQ}, and both are converted to the CNEL by adding 2.0 dB, as shown in studies made by Wyle Laboratories (see reference).
One is able to obtain the daytime average hourly traffic volume as 5.8 % the ADT, based on the Wyle studies. Current and future CNEL is calculated for desired receptor locations using the roadway information. Noise attenuation methods may also be analyzed, tested, and planned with TNM, as required. Further explanation can be supplied on request.

4.2 Measurement Equipment

The following equipment was used at the site to measure existing noise levels:

- Larson Davis Model 824 Type 1 Sound Level Meter, Serial # 824A0343
- Larson Davis Model CA250 Calibrator, Serial # 1081
- Windscreen and tripod for the sound level meter
- Distance measurement wheel
- Digital camera

The sound level meter was field-calibrated immediately prior to the noise measurement and checked afterward, to ensure accuracy. All sound level measurements conducted and presented in this report, in accordance with the regulations, were made with a sound level meter that conforms to the American National Standards Institute specifications for sound level meters ANSI SI.4-1983 (R2001). All instruments are maintained with National Bureau of Standards traceable calibration, per the manufacturers' standards.

5.0 IMPACTS AND MITIGATION

5.1 Current and Future Noise Contours

5.1.1 Current Noise Contours

Without mitigation or proposed project structures, the current 65 CNEL noise contour from vehicle traffic will appear approximately 65 feet south and parallel to the centerline of Hillsdale Road within the project site. The 60 and 55 CNEL noise contours follow parallel to the 65 CNEL contour at approximately 155 feet and 325 feet, respectively from the centerline of Hillsdale Road within the

project site. Please refer to Figure 6: Site Plan Showing Future Combined CNEL Contours and Noise Measurement Location for a graphic image of these contours.

5.1.2 Future Noise Contours

Without mitigation or proposed project structures, the future 65 CNEL noise contour from vehicle traffic will appear approximately 75 feet south and parallel to the centerline of Hillsdale Road within the project site. The 60 and 55 CNEL noise contours follow parallel to the 65 CNEL contour at approximately 165 feet and 335 feet, respectively from the centerline of Hillsdale Road within the project site. Please refer to Figure 7: Site Plan Showing Future Combined CNEL Contours and Noise Measurement Location for a graphic image of these contours.

5.2 Outdoor Use Area Noise Impacts and Mitigation

Policy 4B of the County of San Diego Noise Element (part VIII) of the current San Diego County General Plan states that noise levels at residential outdoor usable areas shall not exceed 60 CNEL. To determine whether mitigation is necessary, noise levels are calculated at the geometric center of each pads with receivers set at 5-feet high from the future pad elevation. If the results show that noise impacts are expected to exceed the minimum 60 CNEL, a sound barrier with the appropriate height and location to provide the required noise attenuation will be described in this section.

Calculations show that without mitigation, future traffic noise levels will range from 54.6 CNEL at Pad 2, located at the southwestern corner of the proposed site, to 61.6 CNEL at Pad 5, located at the northern perimeter of the proposed site. Mitigation to provide an exterior noise level below 60 CNEL is therefore necessary. Further calculations show that a combination of a 2-foot high sound attenuation barrier along the northern property line of Pad 4 and 5, and a 2.5-foot high sound attenuation barrier along the top of the grading cut along the northern and eastern edges of the Pad 6 will lower these noise impacts to a maximum of 59.7 CNEL.

The sound attenuation barrier must meet the construction criteria defined in Section 5.2 for a sound attenuation barrier. Table 4 gives a full list of CNEL values at the first level of the center of each pad with and without the proposed mitigation. For a graphical representation, please refer to Figure 8: Site Plan Showing Future Traffic CNEL Noise Impacts at First- and Second-Levels of Proposed Pad Centers with Mitigation Recommendations.

Table 4. Noise Impacts at Center Of Lots at First- and Second-Levels

Receiver	Pad	Floor Level	Noise Impacts without Mitigation (CNEL)	Noise Impacts with Mitigation (CNEL)	Noise Reduction
R1/ R2	1	1/ 2	56.9/ 57.6	56.0/ 57.1	0.9/ 0.5
R3/ R4	2	1/ 2	55.1/ 56.3	53.4/ 55.3	1.7/ 1.0
R5/ R6	3	1/ 2	57.2/ 59.1	54.9/ 56.5	2.3/ 2.6
R7/ R8	4	1/ 2	61.1/ 63.2	57.9/ 62.7	3.2/ 0.5
R9/ R10	5	1/ 2	62.0/ 63.4	59.4/ 63.2	2.6/ 0.2
R11/ R12	6	1/ 2	61.4/ 63.3	59.7/ 62.6	1.7/ 0.7

5.3 Sound Attenuation Barrier

The sound attenuation barrier should be a single, solid sound wall. The sound attenuation barrier height should be based on the finished pad grade elevation as described in 5.1. The sound attenuation barrier should be solid and constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, with no cracks or gaps through or below the wall. Any seams or cracks must be filled or caulked. If wood is used, it can be tongue and groove and must be at least one-inch thick or have a surface density of at least 3-1/2-pounds per square foot. Where architectural or aesthetic factors allow, glass or clear plastic may be used on the upper portion, if it is desirable to preserve a view.

Sheet metal of 18-gauge (minimum) may be used, if it meets the other criteria and is properly supported and stiffened so that it does not rattle or create noise itself from vibration or wind. Any doors or gates must be designed with overlapping closures on the bottom and sides and meet the minimum specifications of the wall materials described above. The gate(s) may be of 3/4-inch or better wood, solid-sheet metal of at least 18-gauge metal, or an exterior-grade solid-core steel door with prefabricated door jambs.

5.4 Future Traffic Noise Levels at Second Story Level

The State Building Code, Policy 4B of the County of San Diego Noise Element (part VIII) of the current San Diego County General Plan and other agencies (such as HUD) require an acoustical analysis of the expected interior noise level for any residential facilities proposed in an area which has or will have a noise level in excess of 60 CNEL which adheres to the accepted rule that an exterior wall provides a minimum reduction of 15 CNEL to the interior room. The General Plan also states that if exterior noise levels cannot be reduced to 60 CNEL, then an exterior-to-interior noise study must be conducted to demonstrate building features and mitigation which will provide interior noise levels of 45 CNEL or less for residential units, or other habitable interior areas.

Calculations show that the noise impacts at the secondary level at the center of each pad will range from 55.3 CNEL at Lot 2 to 63.2 CNEL at Lot 5. Please see Table 4 shown in the previous page for a summarized list of the noise levels for the traffic noise impacts at the secondary stories at the center of each pad. For a graphical representation, please refer to Figure 8: Site Plan Showing Future Traffic CNEL Noise Impacts at First- and Second-Levels of Proposed Pad Centers with Mitigation Recommendations. Since some of these future traffic noise impacts are greater than 60 CNEL, future exterior-to-interior calculations will be necessary when the buildings plans become available, as required by the County of San Diego Noise Element of the General Plan.

6.0 CERTIFICATION

All recommendations for noise control are based on the best information available at the time our consulting services are provided. However, as there are many factors involved in sound transmission, and Eilar Associates has no control over the construction, workmanship or materials, Eilar Associates is specifically not liable for final results of any recommendations or implementation of the recommendations.

The findings and recommendations of this acoustical analysis report are based on the information available and are a true and factual analysis of the potential acoustical issues associated with the TM5518 Donahue Drive Project in the Community of Valle de Oro, County of San Diego, California. This report was prepared by Nozomi Kamiya, Michael Burrill, and Douglas K. Eilar.

EILAR ASSOCIATES, INC.

Nozomi Kamiya, Acoustical Consultant

Douglas K Eilar, Principal

7.0 REFERENCES

1. 2001 California Building Code, Based on the 1997 Uniform Building Code, Appendix Chapter 12, Division II - Sound Transmission Control, Section 1208 - *Sound Transmission Control*

2. 2001 California Building Code, Based on the 1997 Uniform Building Code, Chapter 12, Section 1203.3 – Ventilation

3. 2001 California Noise Insulation Standards, effective 11/01/02, Based on 1997 Uniform Building Code, California Code of Regulations, Title 24

4. Egan, David M., Architectural Acoustics, McGraw-Hill Companies, Inc, 1988

5. Harris, Cyril M., Handbook of Acoustical Measurements and Noise Control, 3rd Edition, Acoustical Society of America, 1998

6. Heeden, Robert A., Compendium of Materials for Noise Control, U.S. Department of Health, Education and Welfare, National Institute for Occupational Safety and Health, November 1978

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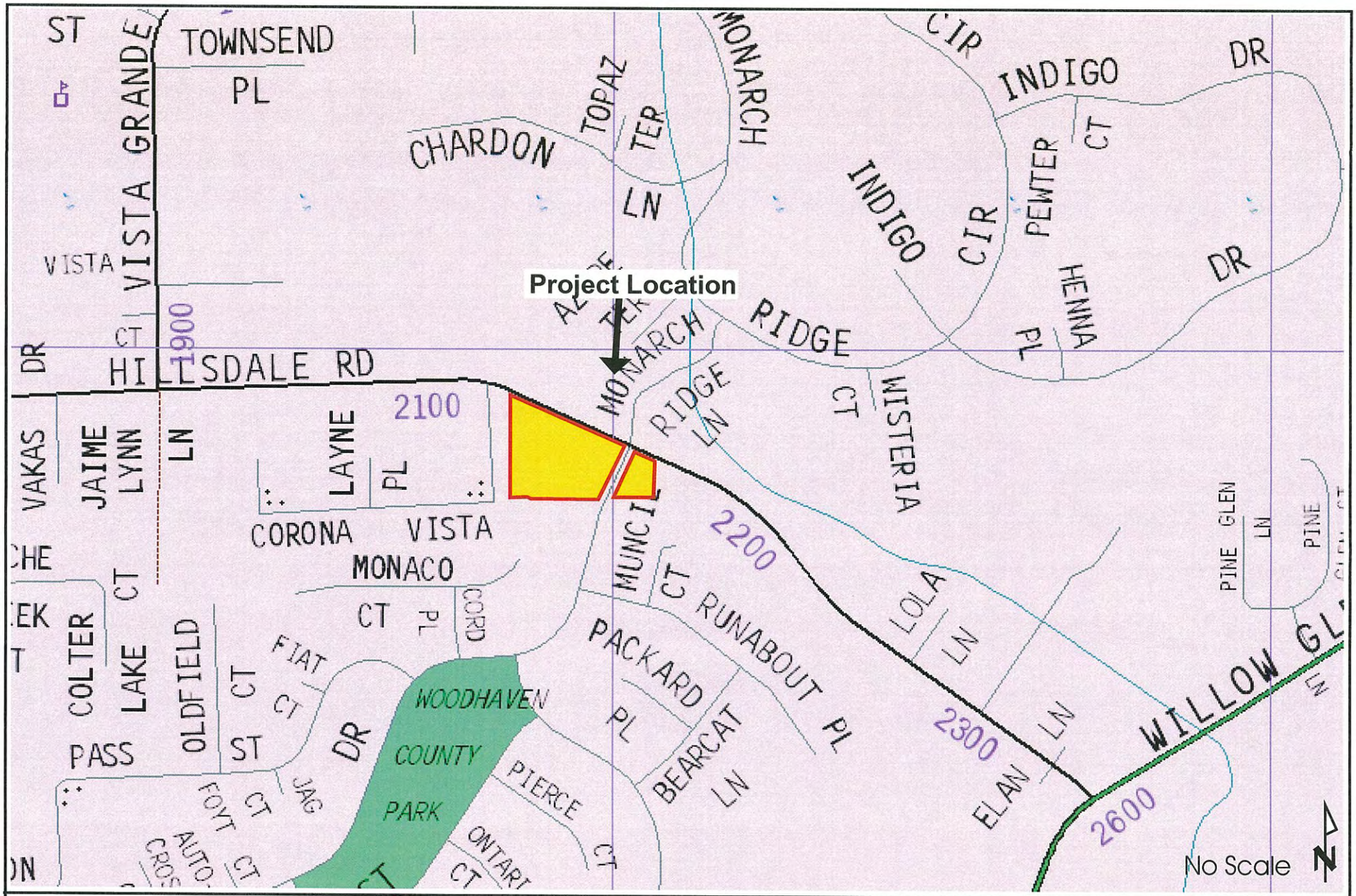
9. Noise Element to the General Plan, County of San Diego

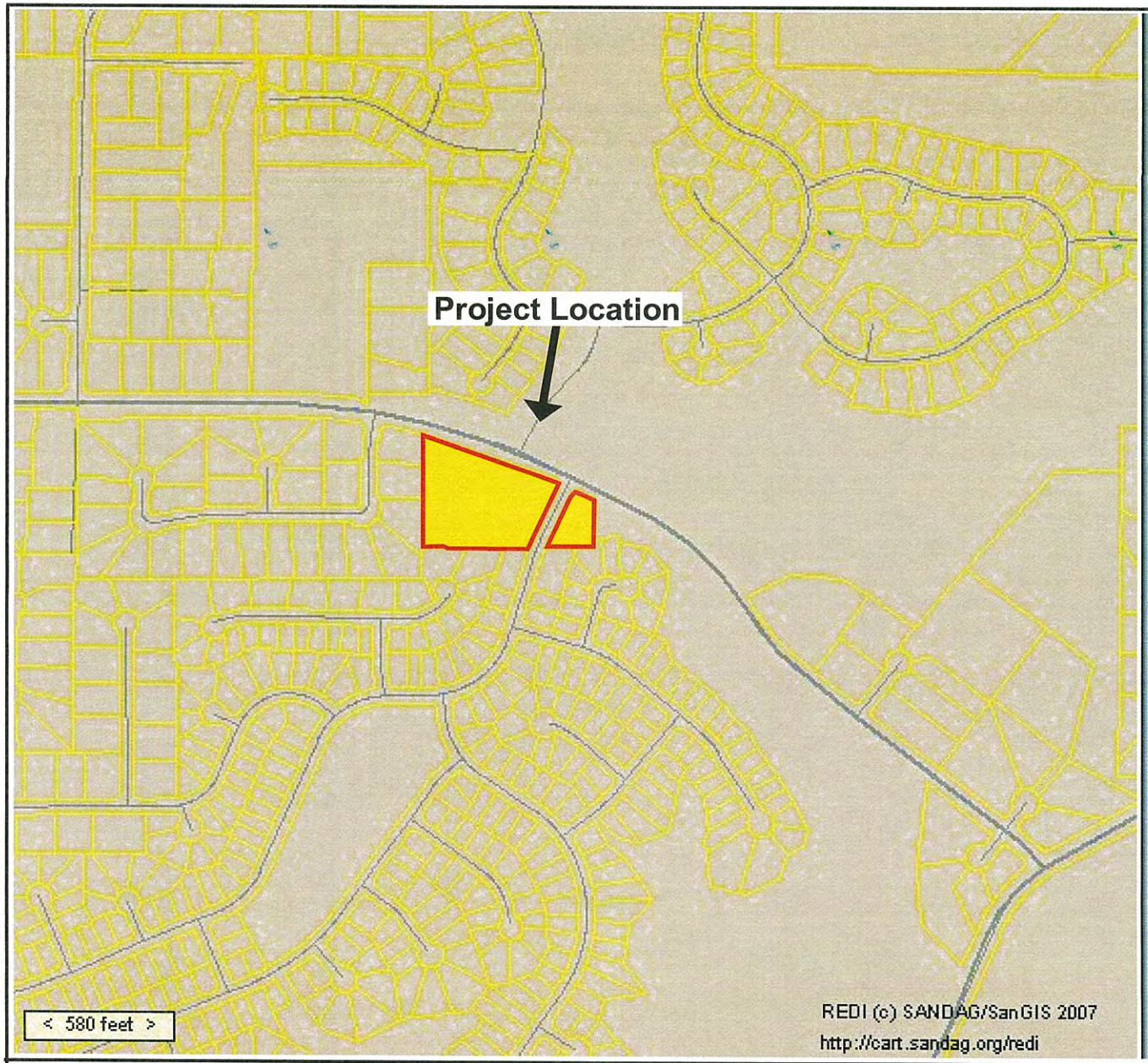
10. Western Electro-Acoustic Laboratory, Inc., Sound Transmission Loss vs. Glazing Type, Window Size and Air Filtration, January 1985.

11. Wyle Laboratories, Development of Ground Transportation Systems Noise Contours for the San Diego Region, December 1973

FIGURES



Eilar Associates **539 Encinitas Boulevard, Suite 206** **Encinitas, California 92024** **760-753-1865**	**Project Vicinity Map** **Job # A70114N2**	**Figure 1**



LEGEND

Reference Layers

Parcels

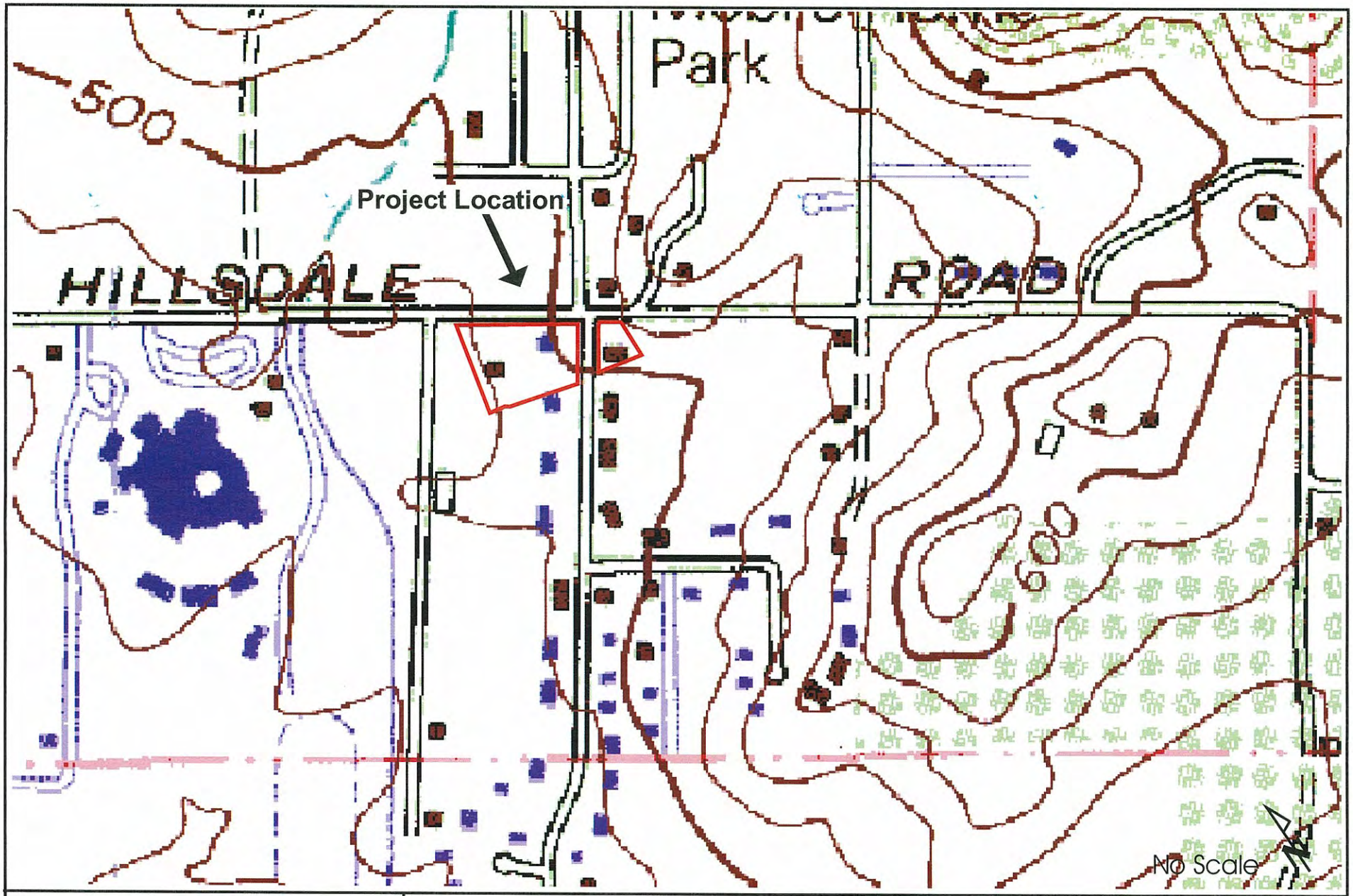
Roads

APN: 517-020-90-00
517-020-91-00

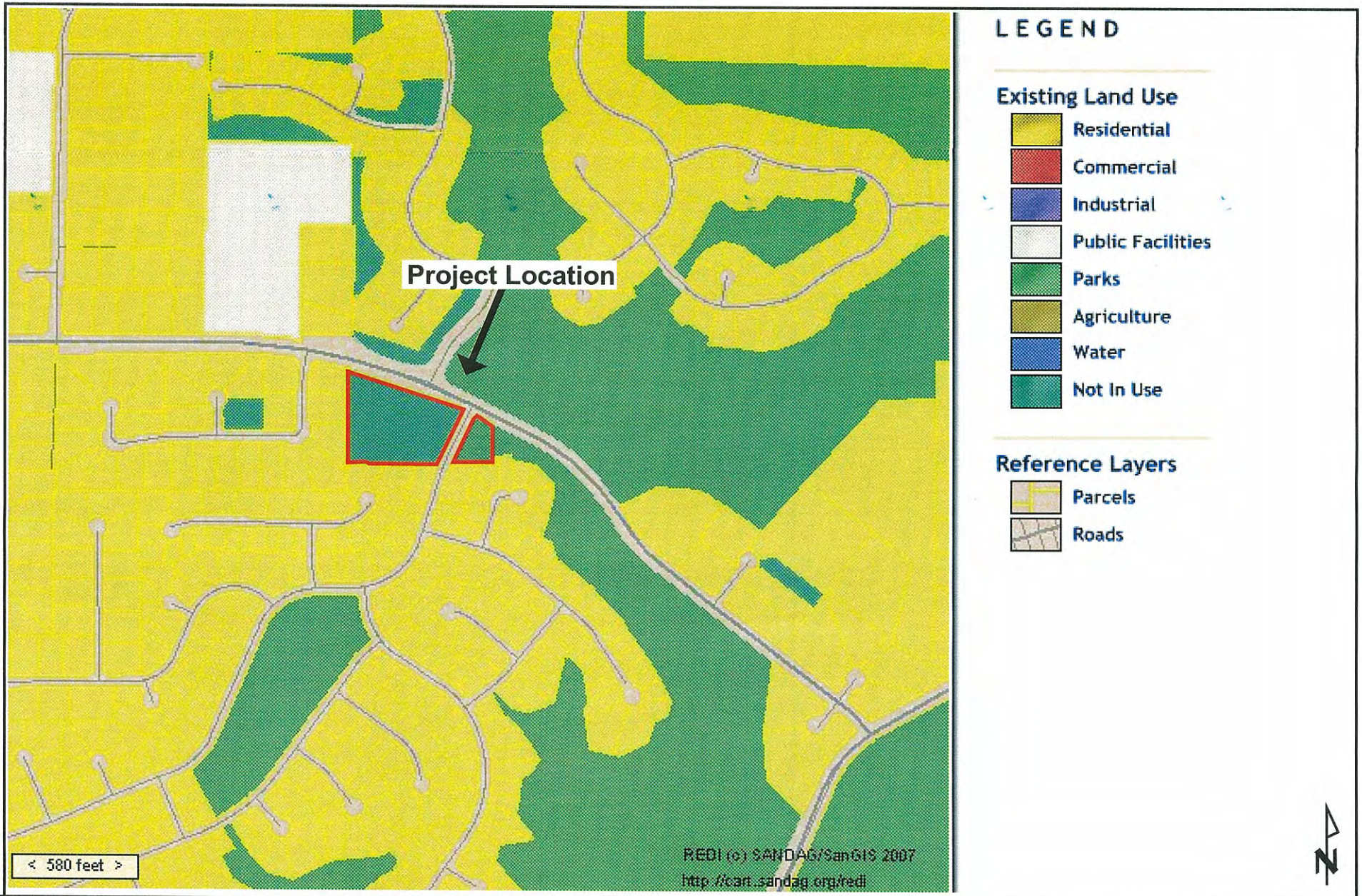
N

Eilar Associates 539 Encinitas Boulevard, Suite 206 Encinitas, California 92024 760-753-1865	Assessor's Parcel Map Job # A70114N2	Figure 2

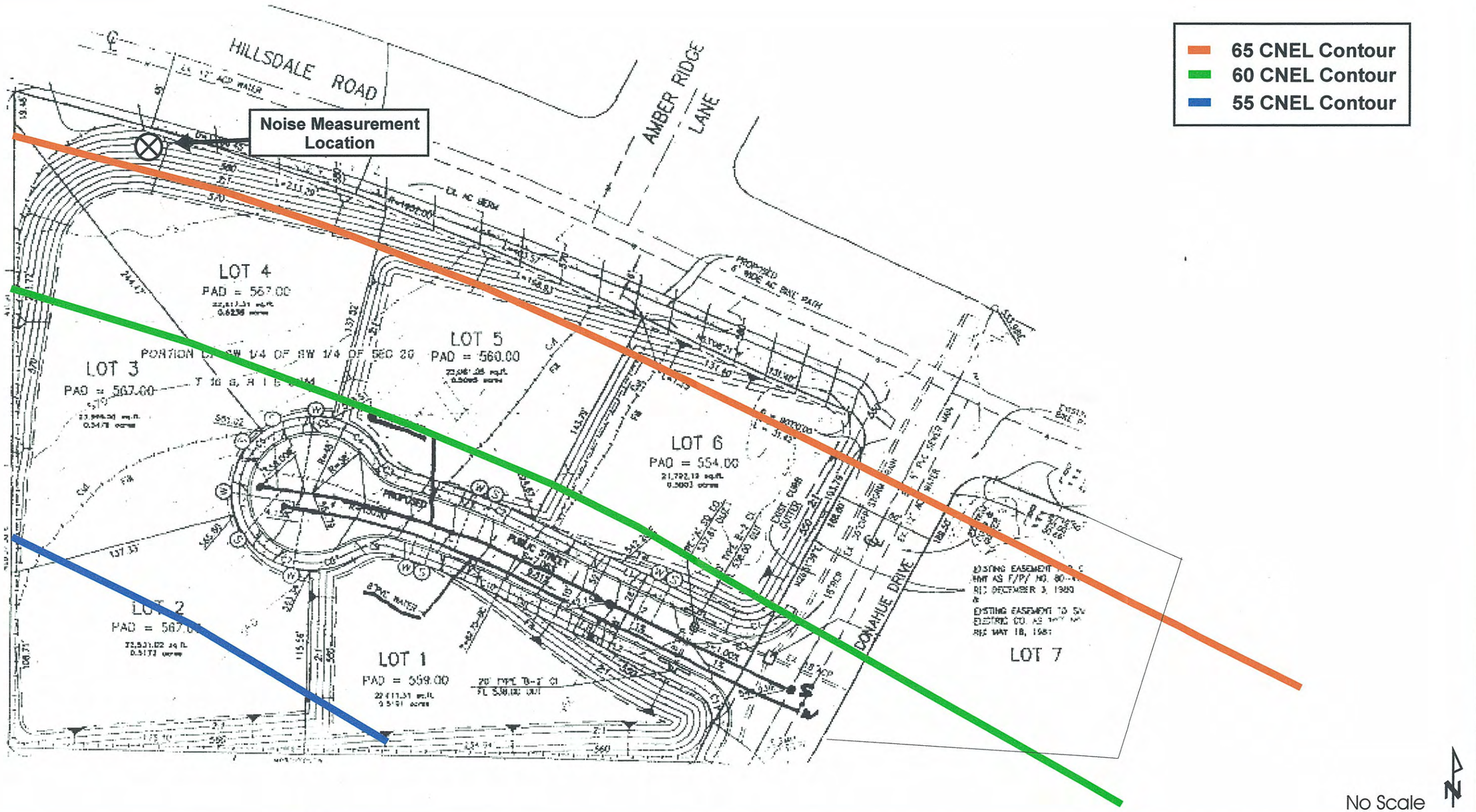
Eilar Associates **539 Encinitas Boulevard, Suite 206** **Encinitas, California 92024** **760-753-1865**	**Satellite Aerial Photograph** **Job # A70114N2**	**Figure 3**



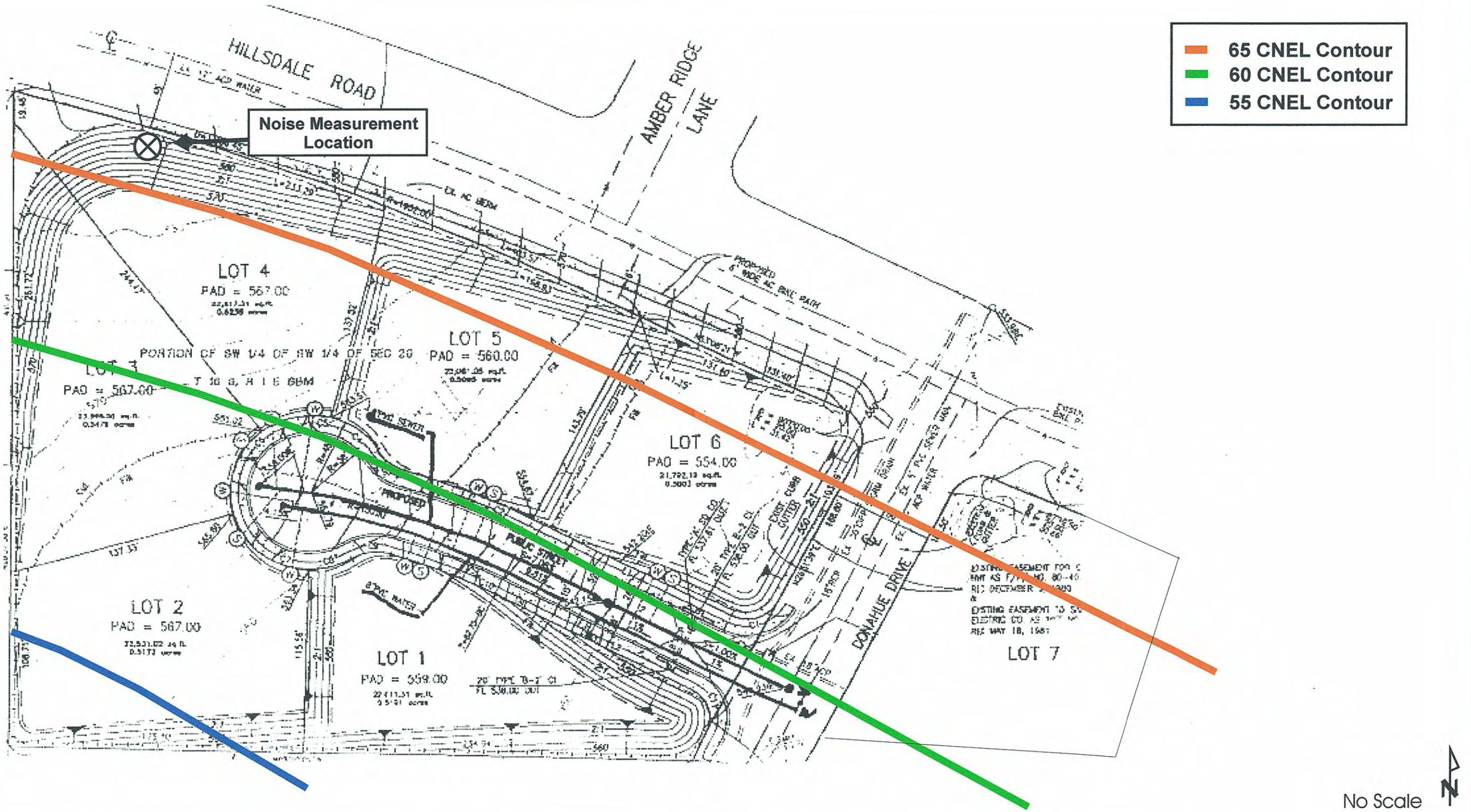
Eilar Associates 539 Encinitas Boulevard, Suite 206 Encinitas, California 92024 760-753-1865	Topographic Map Job # A70114N2	Figure 4



Eilar Associates **539 Encinitas Boulevard, Suite 206** **Encinitas, California 92024** **760-753-1865**	**Planned Land Use Map** **Job # A70114N2**	**Figure 5**

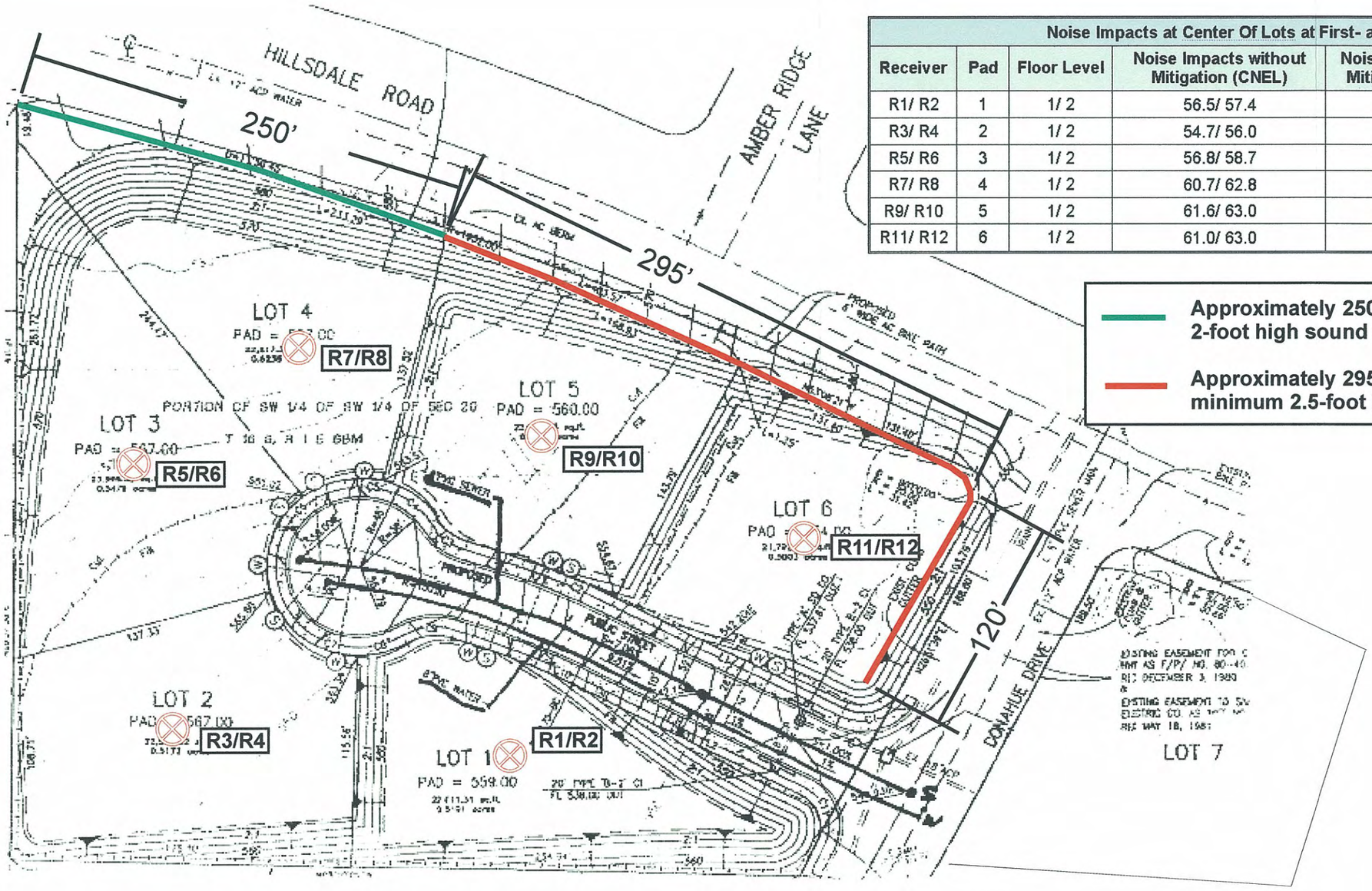


Eilar Associates **539 Encinitas Boulevard, Suite 206** **Encinitas, California 92024** **760-753-1865**	**Site Plan Showing Current Traffic CNEL Contours and Noise Measurement Location** **Job # A70114N2**	**Figure 6**



Eilar Associates **539 Encinitas Boulevard, Suite 206** **Encinitas, California 92024** **760-753-1865**	**Site Plan Showing Future Traffic CNEL Contours and Noise Measurement Location** **Job # A70114N2**	**Figure 7**

Noise Impacts at Center Of Lots at First- and Second-Levels					
Receiver	Pad	Floor Level	Noise Impacts without Mitigation (CNEL)	Noise Impacts with Mitigation (CNEL)	Noise Reduction
R1/ R2	1	1/ 2	56.5/ 57.4	53.5/ 53.3	3.0/ 4.1
R3/ R4	2	1/ 2	54.7/ 56.0	50.8/ 51.7	3.9/ 5.0
R5/ R6	3	1/ 2	56.8/ 58.7	51.6/ 53.7	5.7/ 5.0
R7/ R8	4	1/ 2	60.7/ 62.8	54.5/ 58.6	6.2/ 4.2
R9/ R10	5	1/ 2	61.6/ 63.0	55.0/ 59.2	6.6/ 3.8
R11/ R12	6	1/ 2	61.0/ 63.0	55.2/ 59.7	5.8/ 3.3



Approximately 250-foot by minimum 2-foot high sound attenuation barrier

Approximately 295-foot and 120-foot long by minimum 2.5-foot high sound attenuation barrier

No Scale

N

Eilar Associates 539 Encinitas Boulevard, Suite 206 Encinitas, California 92024 760-753-1865	Site Plan Showing Future Traffic CNEL Noise Impacts at First- and Second-Levels of Proposed Pad Centers with Mitigation Recommendations Job # A70114N2	Figure 8

APPENDIX A

County of San Diego Scoping Letter, Dated December 29, 2006

GARY L. PRYOR
DIRECTOR

County of San Diego

DEPARTMENT OF PLANNING AND LAND USE

5201 RUFFIN ROAD, SUITE B, SAN DIEGO, CALIFORNIA 92123-1666
INFORMATION (858) 694-2960
TOLL FREE (800) 411-0017

SAN MARCOS OFFICE
151 E. CARMEL STREET
SAN MARCOS, CA 92078-4309
(760) 471-0730

EL CAJON OFFICE
200 EAST MAIN ST. - SIXTH FLOOR
EL CAJON, CA 92020-3912
(619) 441-4030

A701CG

December 29, 2006

Roman Miranda
7801 Mission Center Court, Suite 100
San Diego, CA 92108

CASE NUMBER(S): TM5518; ENVIRONMENTAL LOG NO.: 06-14-046; PROJECT NAME: Donahue Drive; PROJECT ADDRESS: Hillsdale Road and Donahue Drive in the Valle de Oro Community Planning Area; APN 517-020-90 & 91

Dear Mr. Miranda:

The Department of Planning and Land Use (DPLU) has reviewed your application for a Tentative Map and is providing you with the attached package of information as a guide for further processing your application. This package consists of:

- Determination of Completeness pursuant to Section 65943 of the Government Code;
- Determination of Completeness pursuant to the California Environmental Quality Act (CEQA);
- Information concerning pipelining and the County of San Diego General Plan Update, General Plan 2020;
- A MATRIX which summarizes all the information we are requesting;
- Attachments which are detailed and provide you with very specific information on our request(s);
- A Memorandum of Understanding which must be executed by the applicant, the consultant and the County for each technical CEQA study requested;
- Valle de Oro Community Planning Group Comments;
- Preliminary conditions from the Department of Public Works;
- An Environmental Cost Estimate; and,
- Estimated Processing Schedule

PROJECT DESCRIPTION

Below is the project description that staff has generated from the information provided in the application package and the associated Application for Environmental Initial Study (AEIS). Please review this project description and verify with staff that the project description is correct:

ATTACHMENT H
NOISE ISSUES

Project Specific Information:
The project site is adjacent to **Hillsdale Road & Donahue Drive** and thus is impacted by traffic noise. Hillsdale Road is considered to be a collector road in the **County Circulation Element**. Collector roads shall be modeled at a design speed of **55 mph**. Noise sensitive land uses include outdoor living areas which adjoins and is on the same lot as a dwelling unit, typically the rear side / yard. Preliminary noise prediction estimates indicate that without site-specific noise mitigation measures, "noise sensitive" uses at the project site may be impacted by vehicular traffic from Hillsdale Road & Donahue Drive. These roadways may generate noise levels that exceed the applicable sound limits of the Noise Element of the General Plan. Based on the above information, an acoustical (noise) study for this project may be required. (See below).

General Information: Due to the potential for the project property to be impacted by noise from Hillsdale Road & Donahue Drive, a preliminary noise review must be completed. DPLU staff will conduct the preliminary noise review to determine the potential for noise to impact the proposed building areas. The preliminary noise review consists of an assessment of the Preliminary Grading Plan (including the proposed building-pads) with County noise information, including GIS records, reports and maps to determine if noise impacts are expected. If the preliminary noise review determines that no significant impact is likely to the proposed parcels, staff will condition the project so that building cannot take place within road noise buffers and nothing more will be required. If, on the other hand, the preliminary review determines that potentially significant noise-impacts will occur adjacent the proposed project, it will be necessary to hire a County certified noise consultant to conduct a full noise study and technical report. A noise analysis is used to determine whether or not noise levels exceed San Diego County standards. Noise analysis shall occur when the project is adjacent to heavily traveled roads, railroad tracks, airports, or heavy industrial operations. If the noise impacts are associated with traffic movements, airports, or other transportation activities, a noise analysis shall utilize field measurements and projected transportation noise levels to determine the potential for impacts to present and future residents of the project. The noise analysis must conform to the Noise Element of the San Diego County General Plan.

Noise Element:
Policy 4b of the Noise Element of the General Plan specifies that "Whenever it appears that new development will result in any (existing or future) noise sensitive area being subjected to noise levels of CNEL equal to 60 decibels or greater, an acoustical study should be required". The Noise Element defines "noise sensitive area" as "the building site of any residence, hospital, school, library, or similar facility where quiet is an important attribute of the environment."

According to the Noise Element of the General Plan, if the acoustical study shows that noise level at any noise sensitive area will exceed CNEL equal to 60 decibels, the development should not be approved unless the following findings are made:

A. Modifications to the development have been made or will be made which reduce the exterior noise level below CNEL equal to 60 decibels; or

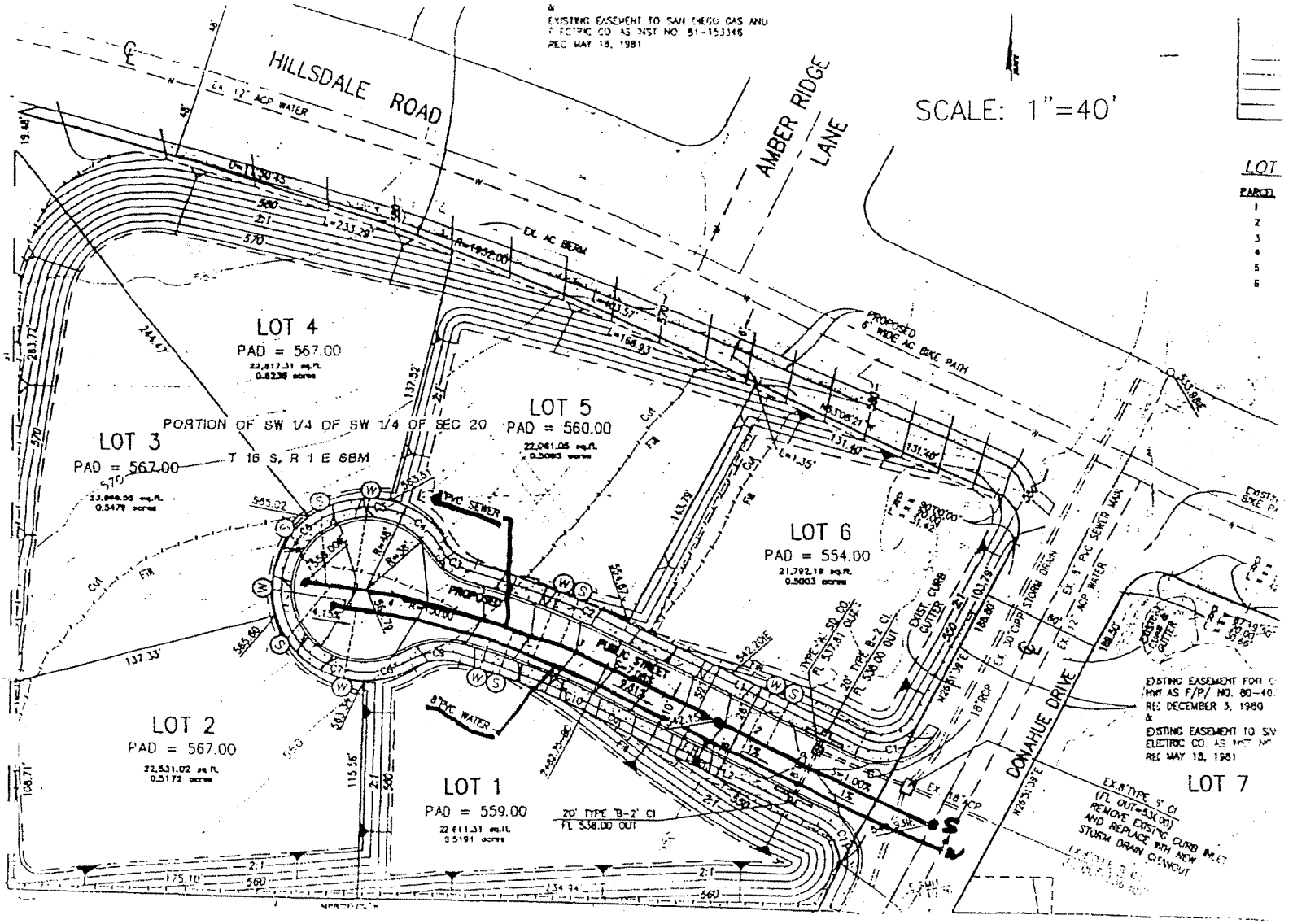
B. If with current noise abatement technology it is infeasible to reduce exterior CNEL to 60 decibels, then modifications to the development have been or will be made which reduce interior noise below CNEL equal to 45 decibels. Particular attention shall be given to noise sensitive interior spaces such as bedrooms. And,

C. If finding "B" above is made, a further finding is made that there are specifically identified overriding social or economic considerations which warrant approval of the development without modifications as described in "A" above.

If the acoustical study shows that noise levels at any noise sensitive area will exceed CNEL equal to 75 decibels, the development should not be approved.

For the County Noise Element, the noise study should assess the existing and forecasted noise impacts to the proposed project and should identify applicable noise mitigation measures. The feasibility and effectiveness of the proposed noise mitigation measures should be substantiated by the results of the acoustical calculations and/or field tests. Visual/aesthetic feasibility of the proposed noise mitigation measures must be addressed.

The Memorandum of Understanding must be executed by the applicant and consultant and subsequently submitted with the first iteration review.


HILLSDALE ROAD
AMBER RIDGE LANE
DONAHUE DRIVE
SCALE: 1"=40'
LOT 1
PAD = 559.00
LOT 2
PAD = 567.00
LOT 3
PAD = 567.00
LOT 4
PAD = 567.00
LOT 5
PAD = 560.00
LOT 6
PAD = 554.00
LOT 7
PORTION OF SW 1/4 OF SW 1/4 OF SEC 20 T 16 S, R 1 E SBM
PROPOSED 6' WIDE AC BIKE PATH
PROPOSED PUBLIC STREET
8" PVC SEWER
8" PVC WATER
EXISTING EASEMENT TO SAN DIEGO GAS AND ELECTRIC CO AS INST NO 81-153346 REC MAY 18, 1981
EXISTING EASEMENT FOR ... AS F/P/ NO. 80-40 REC DECEMBER 3, 1980
EXISTING EASEMENT TO SAN ... ELECTRIC CO. AS INST NO ... REC MAY 18, 1981
EX. 8" TYPE 'B' CI (FL OUT=534.00) REMOVE EXISTING CURB INLET AND REPLACE WITH NEW STORM DRAIN CLEANOUT
EX. 18" RCP
EX. 30" CMP STORM DRAIN
EX. 12" ACP WATER
EX. 8" PVC SEWER MAIN
EXIST CURB GUTTER
20' TYPE 'B-2' CI FL 538.00 OUT
TYPE 'A' SD CI FL 537.31 OUT
LOT

APPENDIX B

Relevant Analysis and Test Results

TNM Traffic Data and Results

TM5518 Donahue Drive Project

On-Site Noise Measurement Conditions and Results	
Date	Tuesday, February 6th, 2007
Time	10:40 a.m. – 10:55 a.m.
Conditions	Cloudy skies, winds at 0 – 2 mph from the south, temperature in the mid-60's with low humidity
Measured Noise Level	64.5 dBA L_{EQ}

On-Site Noise Measurement Traffic Count During						
Roadways		Duration	Autos	Medium Truck	Heavy Truck	Totals
Donahue Drive	Measured	15 minuets	17	0	0	17
	Overall	60 minuets	68	0	0	68
Hillsdale Road	Measured	15 minuets	48	1	2	51
	Overall	60 minuets	192	4	8	204

Calculated versus Measured Traffic Noise Data				
Roadways	**Measured**	**Calculated**	**Difference**	**Correction**
Hillsdale Road	64.5 dBA L_{EQ}	64.4 dBA L_{EQ}	0.1 dB	None applied

Current Traffic Reference Information

- Current traffic ADTs for Donahue Drive and Hillsdale Road were obtained from the website of Department of Transportation, San Diego Association of Governments (SanDAG) at http://www.maximus.sandag.org/tfic/trfic30.html.
- Current truck percentages for all roadways were obtained based on neighboring and surrounding land use, roadway classification, and our professional experience during on-site observations.

Future Traffic Reference Information

- Future (year 2030) traffic ADTs for Donahue Drive and Hillsdale Road were obtained from the website of Department of Transportation, San Diego Association of Governments (SanDAG) at http://www.maximus.sandag.org/tfic/trfic30.html as well as the proposed San Diego County General Plan for 2020.
- The same truck percentages for current traffic were used for future (year 2030) truck traffic percentages on all roadways.

Current (2000) Overall Traffic Information					
Roadway Name	Speed Limit (mph)	Truck Percentage (%) and ADT			
		Total % / ADT	Auto	Medium Truck	Heavy Truck
Donahue Drive	25	100.0%	99.0%	0.5%	0.5%
		1,000	57	0	0
Hillsdale Road (west of Donahue Drive)	55	100.0%	97.0%	2.0%	1.0%
		5,000	281	6	3
Hillsdale Road (east of Donahue Drive)	55	100.0%	97.0%	2.0%	1.0%
		4,000	225	5	2

Future (2020) Overall Traffic Information					
Roadway Name	Speed Limit (mph)	Truck Percentage (%) and ADT			
		Total % / ADT	Auto	Medium Truck	Heavy Truck
Donahue Drive	25	100.0%	99.0%	0.5%	0.5%
		1,000	57	0	0
Hillsdale Road (west of Donahue Drive)	55	100.0%	97.0%	2.0%	1.0%
		6,600	371	8	4
Hillsdale Road (east of Donahue Drive)	55	100.0%	97.0%	2.0%	1.0%
		5,000	281	6	3

CNEL Adjustment Calculation Sheet for TNM Results

Current Calculated Noise Level			
Receiver Identification	**TNM Result (L_{eq})**	**Adjustment** (dB)	**CNEL**
Measured Location	65.1	2.0	67.1

Future (2020) Calculated Noise Level			
Receiver Identification	**TNM Result (L_{eq})**	**Adjustment** (dB)	**CNEL**
Measured Location	66.4	2.0	68.4

Future Calculated Noise Impacts on First- and Second- Level Centroids of Lots without Mitigation			
Receiver Identification	**TNM Result (L_{eq})**	**Adjustment** (dB)	**CNEL**
R1/ R2	54.9/ 55.6	+2/ +2	56.9/ 57.6
R3/ R4	53.1/ 54.3	+2/ +2	55.1/ 56.3
R5/ R6	55.2/ 57.1	+2/ +2	57.2/ 59.1
R7/ R8	59.1/ 61.2	+2/ +2	61.1/ 63.2
R9/ R10	60.0/ 61.4	+2/ +2	62.0/ 63.4
R11/ R12	59.4/ 61.3	+2/ +2	61.4/ 63.3

Future Calculated Noise Impacts on First- and Second- Level Centroids of Lots with Mitigation			
Receiver Identification	**TNM Result (L_{eq})**	**Adjustment** (dB)	**CNEL**
R1/ R2	54.0/ 55.1	+2/ +2	56.0/ 57.1
R3/ R4	51.4/ 53.3	+2/ +2	53.4/ 55.3
R5/ R6	52.9/ 54.4	+2/ +2	54.9/ 56.4
R7/ R8	55.9/ 60.7	+2/ +2	57.9/ 62.7
R9/ R10	57.4/ 61.2	+2/ +2	59.4/ 63.2
R11/ R12	57.7/ 60.6	+2/ +2	59.7/ 62.6

EILAR ASSOCIATE: Calibration to On-site Measurement

Prepared by	Nozomi Kamiya		
Project Number	A70114N1	Client Name	Hanna Maria, LLC
Project Name	TM5518 Donahue Drive Project	Attention	Kamil Salem
Run Title	Calibration to On-site Measurement		

Roadways		Points										
				Coordinates (pavement)			Flow Control			Segment		
Name	Width	Name	No.	x	y	z	Control Device	Speed Constraint	Percent Vehicles Affected	Pavement Type	On Struct?	
	ft			ft	ft	ft		mph	%			
Hillsdale Rd EB	12	point1	1	-1241.0	195.5	600.00				Average		
		point2	2	-932.3	176.8	600.00				Average		
		point3	3	-861.6	163.9	599.00				Average		
		point4	4	-727.9	137.9	593.00				Average		
		point5	5	-518.7	69.7	578.00				Average		
		point6	6	-351.6	4.6	561.00				Average		
		point7	7	-145.6	-87.5	540.00				Average		
		point8	8	-111.1	-102.3	539.00				Average		
		point9	9	136.9	-229.1	525.00				Average		
		point10	10	227.6	-287.9	520.00				Average		
		point11	11	314.3	-364.8	511.00				Average		
		point12	12	403.9	-487.8	497.00						
Hillsdale Rd WB"	12	point13	13	404.8	-458.6	497.00				Average		
		point14	14	340.7	-366.0	508.00				Average		
		point15	15	248.2	-273.6	517.00				Average		
		point16	16	146.6	-209.6	523.00				Average		
		point17	17	-112.3	-79.7	538.00						
Donahue Dr NB 1"	12	point25	18	-998.3	-980.7	545.00				Average		
		point26	19	-953.4	-950.5	545.00				Average		
		point27	20	-894.7	-925.8	545.00				Average		
		point28	21	-826.0	-916.6	545.00				Average		
		point29	22	-629.7	-913.8	547.00				Average		
		point30	23	-605.6	-912.7	547.00				Average		
		point31	24	-538.0	-891.8	551.00				Average		
		point32	25	-481.2	-857.9	553.00				Average		
		point33	26	-422.5	-800.2	555.00				Average		
		point34	27	-380.3	-720.5	558.00				Average		
		point35	28	-360.2	-658.1	558.00				Average		
		point36	29	-348.7	-618.2	558.00				Average		
		point37	30	-256.7	-326.8	551.00				Average		
		point38	31	-147.6	-123.3	540.00						
Donahue Dr NB 2"	12	point39	32	-147.6	-123.3	540.00	Stop	0	100	Average		
		point40	33	-111.1	-102.3	539.00						
Donahue Dr SB"	12	point41	34	-145.6	-87.5	540.00				Average		
		point42	35	-284.1	-335.4	551.00				Average		
		point43	36	-395.7	-705.9	557.00				Average		
		point44	37	-431.7	-773.9	555.00				Average		
		point45	38	-471.5	-817.3	553.00				Average		
		point46	39	-521.0	-856.1	551.00				Average		
		point47	40	-576.4	-879.7	549.00				Average		
		point48	41	-620.0	-889.1	548.00				Average		
		point49	42	-829.7	-895.0	545.00				Average		
		point50	43	-863.9	-895.0	545.00				Average		
		point51	44	-939.3	-915.0	545.00				Average		
		point52	45	-995.8	-949.2	545.00				Average		
		point53	46	-1024.1	-975.1	545.00						
Corona Vis NB 1"	12	point54	47	-1241.5	-219.0	602.00				Average		
		point55	48	-996.1	-217.0	589.00				Average		
		point56	49	-959.6	-229.2	585.00				Average		
		point57	50	-916.4	-222.4	585.00				Average		
		point58	51	-896.1	-178.5	586.00				Average		
		point59	52	-920.5	-129.9	588.00				Average		

		point60	53	-925.2	0.4	594.00				Average	
		point61	54	-914.4	130.0	600.00					
Corona Vis NB 2"	12	point62	55	-914.4	130.0	600.00	Stop	0	100	Average	
		point63	56	-898.1	149.4	600.00				Average	
		point64	57	-861.6	163.9	599.00					
Corona Vis SB"	12	point65	58	-932.3	176.8	600.00				Average	
		point66	59	-939.5	3.2	595.00				Average	
		point67	60	-927.1	-187.5	585.00				Average	
		point68	61	-954.6	-203.9	586.00				Average	
		point69	62	-1241.5	-203.9	602.00					
Runabout Pl EB"	12	point70	63	-360.2	-658.1	558.00				Average	
		point71	64	-128.6	-730.4	571.00				Average	
		point72	65	-4.2	-782.9	575.00				Average	
		point73	66	241.5	-975.0	569.00				Average	
		point74	67	267.9	-995.5	569.00				Average	
		point75	68	373.4	-1080.4	566.00					
Runabout Pl WB 1"	12	point80	69	402.3	-1081.0	566.00				Average	
		point79	70	9.6	-769.2	575.00				Average	
		point78	71	-97.7	-723.8	571.00				Average	
		point77	72	-114.1	-717.5	571.00				Average	
		point76	73	-330.0	-641.8	558.00					
Runabout Pl WB 2"	12	point81	74	-330.0	-641.8	558.00	Stop	0	100	Average	
		point82	75	-348.7	-618.2	558.00					
Muncie Ct NB"	12	point83	76	-97.7	-723.8	571.00				Average	
		point84	77	-37.4	-514.9	561.00				Average	
		point85	78	5.6	-496.5	560.00				Average	
		point86	79	35.2	-503.9	560.00				Average	
		point87	80	57.3	-521.1	560.00				Average	
		point88	81	86.8	-510.0	557.00				Average	
		point89	82	89.3	-484.2	554.00				Average	
		point90	83	64.7	-469.4	554.00				Average	
		point91	84	35.2	-484.2	557.00				Average	
		point92	85	-3.0	-480.5	558.00				Average	
		point93	86	-52.2	-503.9	560.00				Average	
		point94	87	-106.7	-695.3	570.00					
Muncie Ct SB"	12	point95	88	-106.7	-695.3	570.00	Stop	0	100	Average	
		point96	89	-114.1	-717.5	571.00					
Monaco Ct WB/ Cord Pl NB"	12	point97	90	-829.7	-895.0	545.00				Average	
		point98	91	-848.2	-867.4	547.00				Average	
		point99	92	-857.5	-654.0	557.00				Average	
		point100	93	-834.9	-627.5	559.00				Average	
		point101	94	-747.4	-626.2	555.00				Average	
		point102	95	-679.8	-603.6	554.00				Average	
		point103	96	-610.9	-541.3	554.00				Average	
		point104	97	-596.3	-509.5	555.00				Average	
		point105	98	-610.9	-483.0	556.00				Average	
		point106	99	-648.0	-491.0	556.00				Average	
		point107	100	-650.6	-514.8	555.00				Average	
		point108	101	-646.7	-542.7	554.00				Average	
		point109	102	-658.1	-568.8	554.00				Average	
		point110	103	-707.0	-597.5	554.00				Average	
		point111	104	-750.7	-611.2	556.00				Average	
		point112	105	-781.2	-612.5	558.00				Average	
		point113	106	-1241.5	-603.1	577.00					
Monaco Ct EB/ Cord Pl SB"	12	point114	107	-1241.5	-618.3	576.00				Average	
		point115	108	-893.6	-626.5	561.00				Average	
		point116	109	-873.7	-652.3	558.00				Average	
		point117	110	-872.5	-788.1	551.00				Average	
		point118	111	-863.2	-877.1	546.00					
Cord Pl SB"	12	point119	112	-863.2	-877.1	546.00	Stop	0	100	Average	
		point120	113	-863.9	-895.0	545.00					
Amber Ridge Ln NB"	12	point121	114	-300.9	10.2	556.00				Average	
		point122	115	-301.4	55.2	557.00				Average	
		point123	116	-249.3	156.8	556.00				Average	
		point124	117	-161.0	259.7	553.00				Average	
		point125	118	-98.1	334.6	553.00				Average	
		point126	119	-59.3	408.1	555.00					
Amber Ridge Ln SB 1"	12	point127	120	-92.8	408.1	556.00				Average	
		point128	121	-131.6	341.3	554.00				Average	
		point129	122	-266.6	187.5	557.00				Average	

		point130	123	-336.2	57.8	561.00					
Amber Ridge Ln SB 2"	12	point131	124	-336.2	57.8	561.00	Stop	0	100	Average	
		point132	125	-358.4	37.0	563.00					
Private Access NB"	12	point133	126	-689.9	160.9	592.00				Average	
		point134	127	-708.7	226.1	597.00				Average	
		point135	128	-702.9	357.9	602.00				Average	
		point136	129	-692.8	408.6	603.00					
Private Access SB 1"	12	point141	130	-752.2	386.9	604.00				Average	
		point140	131	-718.9	356.5	603.00				Average	
		point139	132	-723.2	250.8	598.00				Average	
		point138	133	-731.9	203.0	597.00					
Private Access SB 2"	12	point143	134	-731.9	203.0	597.00	Stop	0	100	Average	
		point142	135	-749.3	178.3	596.00					
Roadway25"	12	point152	136	-112.3	-79.7	538.00				Average	
		point151	137	-300.9	10.2	556.00				Average	
		point150	138	-358.4	37.0	563.00				Average	
		point149	139	-520.7	104.6	579.00				Average	
		point148	140	-689.9	160.9	592.00				Average	
		point147	141	-749.3	178.3	596.00				Average	
		point146	142	-945.4	212.8	600.00				Average	
		point145	143	-1082.9	226.6	602.00					

Roadways	Points											
			Segment									
			Autos		Mtrucks		Htrucks		Buses		Motorcycles	
Name	Name	No.	Volume	Speed	Volume	Speed	Volume	Speed	Volume	Speed	Volume	Speed
			veh/hr	mph								
Hillsdale Rd EB	point1	1	96	55	0	0	6	55	0	0	0	0
	point2	2	96	55	0	0	6	55	0	0	0	0
	point3	3	96	55	0	0	6	55	0	0	0	0
	point4	4	96	55	0	0	6	55	0	0	0	0
	point5	5	96	55	0	0	6	55	0	0	0	0
	point6	6	96	55	0	0	6	55	0	0	0	0
	point7	7	96	55	0	0	6	55	0	0	0	0
	point8	8	96	55	0	0	6	55	0	0	0	0
	point9	9	96	55	0	0	6	55	0	0	0	0
	point10	10	96	55	0	0	6	55	0	0	0	0
	point11	11	96	55	0	0	6	55	0	0	0	0
	point12	12										
Hillsdale Rd WB"	point13	13	96	45	0	0	6	35	0	0	0	0
	point14	14	96	45	0	0	6	35	0	0	0	0
	point15	15	96	45	0	0	6	35	0	0	0	0
	point16	16	96	45	0	0	6	35	0	0	0	0
	point159	159	96	45	0	0	6	35	0	0	0	0
	point158	158	96	45	0	0	6	35	0	0	0	0
	point157	157	96	45	0	0	6	35	0	0	0	0
	point156	156	96	45	0	0	6	35	0	0	0	0
	point155	155	96	45	0	0	6	35	0	0	0	0
	point154	154	96	45	0	0	6	35	0	0	0	0
	point153	153	96	45	0	0	6	35	0	0	0	0
	point17	17										
Donahue Dr NB 1"	point25	25	34	25	0	0	0	0	0	0	0	0
	point26	26	34	25	0	0	0	0	0	0	0	0
	point27	27	34	25	0	0	0	0	0	0	0	0
	point28	28	34	25	0	0	0	0	0	0	0	0
	point29	29	34	25	0	0	0	0	0	0	0	0
	point30	30	34	25	0	0	0	0	0	0	0	0
	point31	31	34	25	0	0	0	0	0	0	0	0
	point32	32	34	25	0	0	0	0	0	0	0	0
	point33	33	34	25	0	0	0	0	0	0	0	0
	point34	34	34	25	0	0	0	0	0	0	0	0
	point35	35	34	25	0	0	0	0	0	0	0	0
	point36	36	34	25	0	0	0	0	0	0	0	0
	point37	37	34	25	0	0	0	0	0	0	0	0
	point38	38										
Donahue Dr NB 2"	point39	39	34	25	0	0	0	0	0	0	0	0
	point40	40										
Donahue Dr SB"	point41	41	34	25	0	0	0	0	0	0	0	0
	point42	42	34	25	0	0	0	0	0	0	0	0
	point43	43	34	25	0	0	0	0	0	0	0	0
	point44	44	34	25	0	0	0	0	0	0	0	0
	point45	45	34	25	0	0	0	0	0	0	0	0
	point46	46	34	25	0	0	0	0	0	0	0	0
	point47	47	34	25	0	0	0	0	0	0	0	0
	point48	48	34	25	0	0	0	0	0	0	0	0
	point49	49	34	25	0	0	0	0	0	0	0	0
	point50	50	34	25	0	0	0	0	0	0	0	0
	point51	51	34	25	0	0	0	0	0	0	0	0
	point52	52	34	25	0	0	0	0	0	0	0	0
	point53	53										
Corona Vis NB 1"	point54	54	0	0	0	0	0	0	0	0	0	0
	point55	55	0	0	0	0	0	0	0	0	0	0
	point56	56	0	0	0	0	0	0	0	0	0	0
	point57	57	0	0	0	0	0	0	0	0	0	0
	point58	58	0	0	0	0	0	0	0	0	0	0
	point59	59	0	0	0	0	0	0	0	0	0	0
	point60	60	0	0	0	0	0	0	0	0	0	0
	point61	61										

Corona Vis NB 2"	point62	62	0	0	0	0	0	0	0	0	0	0
	point63	63	0	0	0	0	0	0	0	0	0	0
	point64	64										
Corona Vis SB"	point65	65	0	0	0	0	0	0	0	0	0	0
	point66	66	0	0	0	0	0	0	0	0	0	0
	point67	67	0	0	0	0	0	0	0	0	0	0
	point68	68	0	0	0	0	0	0	0	0	0	0
	point69	69										
Runabout Pl EB"	point70	70	0	0	0	0	0	0	0	0	0	0
	point71	71	0	0	0	0	0	0	0	0	0	0
	point72	72	0	0	0	0	0	0	0	0	0	0
	point73	73	0	0	0	0	0	0	0	0	0	0
	point74	74	0	0	0	0	0	0	0	0	0	0
	point75	75										
Runabout Pl WB 1"	point80	80	0	0	0	0	0	0	0	0	0	0
	point79	79	0	0	0	0	0	0	0	0	0	0
	point78	78	0	0	0	0	0	0	0	0	0	0
	point77	77	0	0	0	0	0	0	0	0	0	0
	point76	76										
Runabout Pl WB 2"	point81	81	0	0	0	0	0	0	0	0	0	0
	point82	82										
Muncie Ct NB"	point83	83	0	0	0	0	0	0	0	0	0	0
	point84	84	0	0	0	0	0	0	0	0	0	0
	point85	85	0	0	0	0	0	0	0	0	0	0
	point86	86	0	0	0	0	0	0	0	0	0	0
	point87	87	0	0	0	0	0	0	0	0	0	0
	point88	88	0	0	0	0	0	0	0	0	0	0
	point89	89	0	0	0	0	0	0	0	0	0	0
	point90	90	0	0	0	0	0	0	0	0	0	0
	point91	91	0	0	0	0	0	0	0	0	0	0
	point92	92	0	0	0	0	0	0	0	0	0	0
	point93	93	0	0	0	0	0	0	0	0	0	0
	point94	94										
Muncie Ct SB"	point95	95	0	0	0	0	0	0	0	0	0	0
	point96	96										
Monaco Ct WB/ Cord Pl N	point97	97	0	0	0	0	0	0	0	0	0	0
	point98	98	0	0	0	0	0	0	0	0	0	0
	point99	99	0	0	0	0	0	0	0	0	0	0
	point100	100	0	0	0	0	0	0	0	0	0	0
	point101	101	0	0	0	0	0	0	0	0	0	0
	point102	102	0	0	0	0	0	0	0	0	0	0
	point103	103	0	0	0	0	0	0	0	0	0	0
	point104	104	0	0	0	0	0	0	0	0	0	0
	point105	105	0	0	0	0	0	0	0	0	0	0
	point106	106	0	0	0	0	0	0	0	0	0	0
	point107	107	0	0	0	0	0	0	0	0	0	0
	point108	108	0	0	0	0	0	0	0	0	0	0
	point109	109	0	0	0	0	0	0	0	0	0	0
	point110	110	0	0	0	0	0	0	0	0	0	0
	point111	111	0	0	0	0	0	0	0	0	0	0
	point112	112	0	0	0	0	0	0	0	0	0	0
	point113	113										
Monaco Ct EB/ Cord Pl SE	point114	114	0	0	0	0	0	0	0	0	0	0
	point115	115	0	0	0	0	0	0	0	0	0	0
	point116	116	0	0	0	0	0	0	0	0	0	0
	point117	117	0	0	0	0	0	0	0	0	0	0
	point118	118										
Cord Pl SB"	point119	119	0	0	0	0	0	0	0	0	0	0
	point120	120										
Amber Ridge Ln NB"	point121	121	0	0	0	0	0	0	0	0	0	0
	point122	122	0	0	0	0	0	0	0	0	0	0
	point123	123	0	0	0	0	0	0	0	0	0	0
	point124	124	0	0	0	0	0	0	0	0	0	0
	point125	125	0	0	0	0	0	0	0	0	0	0
	point126	126										
Amber Ridge Ln SB 1"	point127	127	0	0	0	0	0	0	0	0	0	0

	point128	128	0	0	0	0	0	0	0	0	0	0
	point129	129	0	0	0	0	0	0	0	0	0	0
	point130	130										
Amber Ridge Ln SB 2"	point131	131	0	0	0	0	0	0	0	0	0	0
	point132	132										
Private Access NB"	point133	133	0	0	1	45	0	0	0	0	0	0
	point134	134	0	0	1	45	0	0	0	0	0	0
	point135	135	0	0	1	45	0	0	0	0	0	0
	point136	136										
Private Access SB 1"	point141	141	0	0	0	0	0	0	0	0	0	0
	point140	140	0	0	0	0	0	0	0	0	0	0
	point139	139	0	0	0	0	0	0	0	0	0	0
	point138	138										
Private Access SB 2"	point143	143	0	0	0	0	0	0	0	0	0	0
	point142	142										

Barriers				Points									
Name	Type	If berm		Name	No.	Coordinates			Height at point	Segment			On Struct?
		top width	run: rise			x	y	z		Segment height pertubation			
										Increment	# Up	# Dn	
		ft	ft:ft			ft	ft	ft	ft	ft			
South barrier	W			point1	1	-742.1	-347.9	568.0	6.0	0	0	0	
				point2	2	-417.8	-346.7	555.0	6.0	0	0	0	
				point3	3	-409.4	-328.7	555.0	6.0	0	0	0	
				point4	4	-325.6	-335.9	551.0	6.0	0	0	0	
				point5	5	-311.3	-351.5	551.0	6.0	0	0	0	
				point6	6	-311.3	-364.6	551.0	6.0	0	0	0	
				point7	7	-343.6	-473.5	552.0	6.0				
East barrier"	W			point8	8	-871.5	83.9	598.0	6.0	0	0	0	
				point9	9	-869.4	108.2	598.0	6.0	0	0	0	
				point10	10	-847.2	124.0	598.0	6.0	0	0	0	
				point11	11	-734.1	97.6	598.0	6.0	0	0	0	
				point12	12	-745.7	-3.9	597.0	6.0	0	0	0	
				point13	13	-748.6	-27.2	592.0	6.0	0	0	0	
				point14	14	-756.4	-150.9	592.0	6.0	0	0	0	
				point15	15	-767.3	-185.2	584.0	6.0	0	0	0	
				point17	16	-754.1	-193.5	584.0	6.0	0	0	0	
				point18	17	-757.7	-247.4	584.0	6.0	0	0	0	
				point19	18	-779.2	-291.6	584.0	6.0	0	0	0	
				point20	19	-822.3	-347.9	583.0	6.0	0	0	0	
				point21	20	-854.6	-367.0	583.0	6.0	0	0	0	
				point22	21	-908.5	-379.0	583.0	6.0	0	0	0	
				point23	22	-985.1	-383.8	582.0	6.0				
Barrier3"	W			point24	23	-842.5	73.7	597.0	30.0	0	0	0	
				point25	24	-843.7	8.4	597.0	30.0	0	0	0	
				point26	25	-795.9	8.4	597.0	30.0	0	0	0	
				point27	26	-791.2	14.2	597.0	30.0	0	0	0	
				point28	27	-756.2	15.4	597.0	30.0	0	0	0	
				point29	28	-753.9	49.2	597.0	30.0	0	0	0	
				point30	29	-802.8	73.7	597.0	30.0	0	0	0	
				point31	30	-842.5	73.7	597.0	30.0				
Barrier4"	W			point32	31	-853.0	-12.6	592.0	30.0	0	0	0	
				point33	32	-861.2	-124.5	592.0	30.0	0	0	0	
				point34	33	-770.2	-124.5	592.0	30.0	0	0	0	
				point35	34	-770.2	-95.3	592.0	30.0	0	0	0	
				point36	35	-788.9	-96.5	592.0	30.0	0	0	0	
				point37	36	-787.7	-14.9	592.0	30.0	0	0	0	
				point38	37	-853.0	-12.6	592.0	30.0				
Barrier5"	W			point39	38	-804.0	-162.9	584.0	30.0	0	0	0	
				point40	39	-851.8	-224.7	584.0	30.0	0	0	0	
				point41	40	-787.7	-251.5	584.0	30.0	0	0	0	
				point42	41	-757.4	-193.3	584.0	30.0	0	0	0	
				point43	42	-804.0	-162.9	584.0	30.0				
Barrier6"	W			point44	43	-898.5	-269.0	583.0	30.0	0	0	0	
				point45	44	-869.3	-333.1	583.0	30.0	0	0	0	
				point46	45	-811.0	-309.8	583.0	30.0	0	0	0	
				point47	46	-827.3	-265.5	583.0	30.0	0	0	0	
				point48	47	-858.8	-278.3	583.0	30.0	0	0	0	
				point49	48	-867.0	-257.4	583.0	30.0	0	0	0	
				point50	49	-898.5	-269.0	583.0	30.0				
Barrier7"	W			point51	50	-664.1	-387.9	562.0	25.0	0	0	0	
				point52	51	-665.2	-439.2	560.0	27.0	0	0	0	
				point53	52	-606.9	-439.2	557.0	30.0	0	0	0	
				point54	53	-602.3	-389.1	558.0	29.0	0	0	0	
				point55	54	-664.1	-387.9	562.0	25.0				
Barrier8"	W			point56	55	-528.8	-373.9	558.0	26.0	0	0	0	
				point57	56	-587.1	-443.9	557.0	25.0	0	0	0	
				point58	57	-542.8	-476.5	557.0	25.0	0	0	0	
				point59	58	-492.6	-397.2	558.0	26.0	0	0	0	
				point60	59	-528.8	-373.9	558.0	26.0				
Barrier9"	W			point61	60	-394.7	-344.8	554.0	28.0	0	0	0	

				point62	61	-416.8	-405.4	554.0	28.0	0	0	0	
				point63	62	-355.0	-420.6	551.0	25.0	0	0	0	
				point64	63	-337.5	-364.6	551.0	25.0	0	0	0	
				point65	64	-394.7	-344.8	554.0	28.0				
North barrier"	W			point65	65	-844.9	378.2	607.0	5.0	0	0	0	
				point66	66	-807.3	378.2	606.0	5.0	0	0	0	
				point67	67	-763.8	368.1	605.0	5.0	0	0	0	
				point68	68	-737.7	355.0	605.0	5.0	0	0	0	
				point69	69	-730.4	327.5	604.0	5.0	0	0	0	
				point70	70	-736.2	252.2	604.0	5.0	0	0	0	
				point71	71	-869.6	268.1	604.0	5.0	0	0	0	
				point72	72	-953.6	275.4	604.0	5.0				

Terrain Lines	Points			
Name	No.	Coordinates (ground)		
		x	y	z
		ft	ft	ft
Terrain Line1	1	-544.8	50.2	578.0
	10	-651.6	85.4	586.5
	11	-680.1	94.2	587.0
	12	-708.6	103.6	589.0
	2	-708.5	-27.1	583.0
	3	-708.1	-326.6	568.0
	4	-296.2	-326.7	551.0
	5	-197.7	-121.7	542.0
	6	-200.5	-100.6	542.0
	7	-217.3	-89.1	542.0
	8	-379.9	-11.3	561
	9	-544.8	50.2	578

Ground Zones			Points		
Name	Type	Flow Resistivity	No.	Coordinates (ground)	
				x	y
		cgs rayls		ft	ft
Ground Zone1	Hard Soil	5000	1	-708.6	103.6
			2	-708.1	-326.6
			3	-296.2	-326.7
			4	-197.7	-121.7
			5	-200.5	-100.6
			6	-217.3	-89.1
			7	-379.9	-11.3
			8	-544.8	50.2

Receivers							Sound Levels		
			Coordinates (pavement)				Calculated Laeq 1hr		
Name	No.	No. of Dwelling Units	x	y	z	Height above ground	Without Barrier	With Barrier	Noise Reduction
			ft	ft	ft	ft	dBA	dBA	dBA
Measurement location	2	1	-653.80	78.60	586.00	5.00	64.4	64.4	0.0

EILAR ASSOCIATES: Current Traffic Conditions and Contours

Prepared by	Nozomi Kamiya		
Project Number	A70114N1	Client Name	Hanna Maria, LLC
Project Name	TM5518 Donahue Drive Project	Attention	Kamil Salem
Run Title	Current Traffic Conditions and Contours		

Roadways		Points										
				Coordinates (pavement)			Flow Control			Segment		
Name	Width	Name	No.	x	y	z	Control Device	Speed Constraint	Percent Vehicles Affected	Pavement Type	On Struct?	
	ft			ft	ft	ft		mph	%			
Hillsdale Rd EB	12	point1	1	-1241.0	195.5	600.00				Average		
		point2	2	-932.3	176.8	600.00				Average		
		point3	3	-861.6	163.9	599.00				Average		
		point4	4	-727.9	137.9	593.00				Average		
		point5	5	-518.7	69.7	578.00				Average		
		point6	6	-351.6	4.6	561.00				Average		
		point7	7	-145.6	-87.5	540.00				Average		
		point8	8	-111.1	-102.3	539.00				Average		
		point9	9	136.9	-229.1	525.00				Average		
		point10	10	227.6	-287.9	520.00				Average		
		point11	11	314.3	-364.8	511.00				Average		
		point12	12	403.9	-487.8	497.00						
Hillsdale Rd WB"	12	point13	13	404.8	-458.6	497.00				Average		
		point14	14	340.7	-366.0	508.00				Average		
		point15	15	248.2	-273.6	517.00				Average		
		point16	16	146.6	-209.6	523.00				Average		
		point150	150	-112.3	-79.7	538.00				Average		
		point149	149	-300.9	10.2	556.00				Average		
		point148	148	-358.4	37.0	563.00				Average		
		point147	147	-520.7	104.6	579.00				Average		
		point146	146	-689.9	160.9	592.00				Average		
		point145	145	-749.3	178.3	596.00				Average		
		point144	144	-945.4	212.8	600.00				Average		
		point17	17	-1082.9	226.6	602.00						
Donahue Dr NB 1"	12	point25	18	-998.3	-980.7	545.00				Average		
		point26	19	-953.4	-950.5	545.00				Average		
		point27	20	-894.7	-925.8	545.00				Average		
		point28	21	-826.0	-916.6	545.00				Average		
		point29	22	-629.7	-913.8	547.00				Average		
		point30	23	-605.6	-912.7	547.00				Average		
		point31	24	-538.0	-891.8	551.00				Average		
		point32	25	-481.2	-857.9	553.00				Average		
		point33	26	-422.5	-800.2	555.00				Average		
		point34	27	-380.3	-720.5	558.00				Average		
		point35	28	-360.2	-658.1	558.00				Average		
		point36	29	-348.7	-618.2	558.00				Average		
		point37	30	-256.7	-326.8	551.00				Average		
		point38	31	-147.6	-123.3	540.00						
Donahue Dr NB 2"	12	point39	32	-147.6	-123.3	540.00	Stop	0	100	Average		
		point40	33	-111.1	-102.3	539.00						
Donahue Dr SB"	12	point41	34	-145.6	-87.5	540.00				Average		
		point42	35	-284.1	-335.4	551.00				Average		
		point43	36	-395.7	-705.9	557.00				Average		
		point44	37	-431.7	-773.9	555.00				Average		
		point45	38	-471.5	-817.3	553.00				Average		
		point46	39	-521.0	-856.1	551.00				Average		
		point47	40	-576.4	-879.7	549.00				Average		
		point48	41	-620.0	-889.1	548.00				Average		
		point49	42	-829.7	-895.0	545.00				Average		
		point50	43	-863.9	-895.0	545.00				Average		
		point51	44	-939.3	-915.0	545.00				Average		
		point52	45	-995.8	-949.2	545.00				Average		

		point53	46	-1024.1	-975.1	545.00					
Corona Vis NB 1"	12	point54	47	-1241.5	-219.0	602.00				Average	–
		point55	48	-996.1	-217.0	589.00				Average	
		point56	49	-959.6	-229.2	585.00				Average	
		point57	50	-916.4	-222.4	585.00				Average	
		point58	51	-896.1	-178.5	586.00				Average	
		point59	52	-920.5	-129.9	588.00				Average	
		point60	53	-925.2	0.4	594.00				Average	
		point61	54	-914.4	130.0	600.00					
Corona Vis NB 2"	12	point62	55	-914.4	130.0	600.00	Stop	0	100	Average	
		point63	56	-898.1	149.4	600.00				Average	
		point64	57	-861.6	163.9	599.00					
Corona Vis SB"	12	point65	58	-932.3	176.8	600.00				Average	
		point66	59	-939.5	3.2	595.00				Average	
		point67	60	-927.1	-187.5	585.00				Average	
		point68	61	-954.6	-203.9	586.00				Average	
		point69	62	-1241.5	-203.9	602.00					—
Runabout Pl EB"	12	point70	63	-360.2	-658.1	558.00				Average	
		point71	64	-128.6	-730.4	571.00				Average	
		point72	65	-4.2	-782.9	575.00				Average	
		point73	66	241.5	-975.0	569.00				Average	
		point74	67	267.9	-995.5	569.00				Average	
		point75	68	373.4	-1080.4	566.00					
Runabout Pl WB 1"	12	point80	69	402.3	-1081.0	566.00				Average	
		point79	70	9.6	-769.2	575.00				Average	
		point78	71	-97.7	-723.8	571.00				Average	
		point77	72	-114.1	-717.5	571.00				Average	
		point76	73	-330.0	-641.8	558.00					
Runabout Pl WB 2"	12	point81	74	-330.0	-641.8	558.00	Stop	0	100	Average	
		point82	75	-348.7	-618.2	558.00					
Muncie Ct NB"	12	point83	76	-97.7	-723.8	571.00				Average	
		point84	77	-37.4	-514.9	561.00				Average	
		point85	78	5.6	-496.5	560.00				Average	
		point86	79	35.2	-503.9	560.00				Average	
		point87	80	57.3	-521.1	560.00				Average	
		point88	81	86.8	-510.0	557.00				Average	
		point89	82	89.3	-484.2	554.00				Average	
		point90	83	64.7	-469.4	554.00				Average	
		point91	84	35.2	-484.2	557.00				Average	
		point92	85	-3.0	-480.5	558.00				Average	
		point93	86	-52.2	-503.9	560.00				Average	
		point94	87	-106.7	-695.3	570.00					
Muncie Ct SB"	12	point95	88	-106.7	-695.3	570.00	Stop	0	100	Average	
		point96	89	-114.1	-717.5	571.00					
Monaco Ct WB/ Cord Pl NB"	12	point97	90	-829.7	-895.0	545.00				Average	
		point98	91	-848.2	-867.4	547.00				Average	
		point99	92	-857.5	-654.0	557.00				Average	
		point100	93	-834.9	-627.5	559.00				Average	
		point101	94	-747.4	-626.2	555.00				Average	
		point102	95	-679.8	-603.6	554.00				Average	
		point103	96	-610.9	-541.3	554.00				Average	
		point104	97	-596.3	-509.5	555.00				Average	
		point105	98	-610.9	-483.0	556.00				Average	
		point106	99	-648.0	-491.0	556.00				Average	
		point107	100	-650.6	-514.8	555.00				Average	
		point108	101	-646.7	-542.7	554.00				Average	
		point109	102	-658.1	-568.8	554.00				Average	
		point110	103	-707.0	-597.5	554.00				Average	
		point111	104	-750.7	-611.2	556.00				Average	
		point112	105	-781.2	-612.5	558.00				Average	
		point113	106	-1241.5	-603.1	577.00					
Monaco Ct EB/ Cord Pl SB"	12	point114	107	-1241.5	-618.3	576.00				Average	
		point115	108	-893.6	-626.5	561.00				Average	
		point116	109	-873.7	-652.3	558.00				Average	
		point117	110	-872.5	-788.1	551.00				Average	
		point118	111	-863.2	-877.1	546.00					
Cord Pl SB"	12	point119	112	-863.2	-877.1	546.00	Stop	0	100	Average	
		point120	113	-863.9	-895.0	545.00					
Amber Ridge Ln NB"	12	point121	114	-300.9	10.2	556.00				Average	
		point122	115	-301.4	55.2	557.00				Average	

		point123	116	-249.3	156.8	556.00				Average	
		point124	117	-161.0	259.7	553.00				Average	
		point125	118	-98.1	334.6	553.00				Average	
		point126	119	-59.3	408.1	555.00					
Amber Ridge Ln SB 1"	12	point127	120	-92.8	408.1	556.00				Average	
		point128	121	-131.6	341.3	554.00				Average	
		point129	122	-266.6	187.5	557.00				Average	
		point130	123	-336.2	57.8	561.00					
Amber Ridge Ln SB 2"	12	point131	124	-336.2	57.8	561.00	Stop	0	100	Average	
		point132	125	-358.4	37.0	563.00					
Private Access NB"	12	point133	126	-689.9	160.9	592.00				Average	
		point134	127	-708.7	226.1	597.00				Average	
		point135	128	-702.9	357.9	602.00				Average	
		point136	129	-692.8	408.6	603.00					
Private Access SB 1"	12	point141	130	-752.2	386.9	604.00				Average	
		point140	131	-718.9	356.5	603.00				Average	
		point139	132	-723.2	250.8	598.00				Average	
		point138	133	-731.9	203.0	597.00					
Private Access SB 2"	12	point143	134	-731.9	203.0	597.00	Stop	0	100	Average	
		point142	135	-749.3	178.3	596.00					

Roadways	Points											
			Segment									
			Autos		Mtrucks		Htrucks		Buses		Motorcycles	
Name	Name	No.	Volume	Speed	Volume	Speed	Volume	Speed	Volume	Speed	Volume	Speed
			veh/hr	mph								
Hillsdale Rd EB	point1	1	141	55	3	55	1	55	0	0	0	0
	point2	2	141	55	3	55	1	55	0	0	0	0
	point3	3	141	55	3	55	1	55	0	0	0	0
	point4	4	141	55	3	55	1	55	0	0	0	0
	point5	5	141	55	3	55	1	55	0	0	0	0
	point6	6	141	55	3	55	1	55	0	0	0	0
	point7	7	113	55	2	55	1	55	0	0	0	0
	point8	8	113	55	2	55	1	55	0	0	0	0
	point9	9	113	55	2	55	1	55	0	0	0	0
	point10	10	113	55	2	55	1	55	0	0	0	0
	point11	11	113	55	2	55	1	55	0	0	0	0
	point12	12										
Hillsdale Rd WB"	point13	13	113	55	2	55	1	55	0	0	0	0
	point14	14	113	55	2	55	1	55	0	0	0	0
	point15	15	113	55	2	55	1	55	0	0	0	0
	point16	16	113	55	2	55	1	55	0	0	0	0
	point150	150	141	55	3	55	1	55	0	0	0	0
	point149	149	141	55	3	55	1	55	0	0	0	0
	point148	148	141	55	3	55	1	55	0	0	0	0
	point147	147	141	55	3	55	1	55	0	0	0	0
	point146	146	141	55	3	55	1	55	0	0	0	0
	point145	145	141	55	3	55	1	55	0	0	0	0
	point144	144	141	55	3	55	1	55	0	0	0	0
	point17	17										
Donahue Dr NB 1"	point25	18	29	25	0	0	0	0	0	0	0	0
	point26	19	29	25	0	0	0	0	0	0	0	0
	point27	20	29	25	0	0	0	0	0	0	0	0
	point28	21	29	25	0	0	0	0	0	0	0	0
	point29	22	29	25	0	0	0	0	0	0	0	0
	point30	23	29	25	0	0	0	0	0	0	0	0
	point31	24	29	25	0	0	0	0	0	0	0	0
	point32	25	29	25	0	0	0	0	0	0	0	0
	point33	26	29	25	0	0	0	0	0	0	0	0
	point34	27	29	25	0	0	0	0	0	0	0	0
	point35	28	29	25	0	0	0	0	0	0	0	0
	point36	29	29	25	0	0	0	0	0	0	0	0
	point37	30	29	25	0	0	0	0	0	0	0	0
	point38	31										
Donahue Dr NB 2"	point39	32	29	25	0	0	0	0	0	0	0	0
	point40	33										
Donahue Dr SB"	point41	34	29	25	0	0	0	0	0	0	0	0
	point42	35	29	25	0	0	0	0	0	0	0	0
	point43	36	29	25	0	0	0	0	0	0	0	0
	point44	37	29	25	0	0	0	0	0	0	0	0
	point45	38	29	25	0	0	0	0	0	0	0	0
	point46	39	29	25	0	0	0	0	0	0	0	0
	point47	40	29	25	0	0	0	0	0	0	0	0
	point48	41	29	25	0	0	0	0	0	0	0	0
	point49	42	29	25	0	0	0	0	0	0	0	0
	point50	43	29	25	0	0	0	0	0	0	0	0
	point51	44	29	25	0	0	0	0	0	0	0	0
	point52	45	29	25	0	0	0	0	0	0	0	0
	point53	46										
Corona Vis NB 1"	point54	47	0	0	0	0	0	0	0	0	0	0
	point55	48	0	0	0	0	0	0	0	0	0	0
	point56	49	0	0	0	0	0	0	0	0	0	0
	point57	50	0	0	0	0	0	0	0	0	0	0
	point58	51	0	0	0	0	0	0	0	0	0	0
	point59	52	0	0	0	0	0	0	0	0	0	0
	point60	53	0	0	0	0	0	0	0	0	0	0
	point61	54										

Corona Vis NB 2"	point62	55	0	0	0	0	0	0	0	0	0	0
	point63	56	0	0	0	0	0	0	0	0	0	0
	point64	57										
Corona Vis SB"	point65	58	0	0	0	0	0	0	0	0	0	0
	point66	59	0	0	0	0	0	0	0	0	0	0
	point67	60	0	0	0	0	0	0	0	0	0	0
	point68	61	0	0	0	0	0	0	0	0	0	0
	point69	62										
Runabout Pl EB"	point70	63	0	0	0	0	0	0	0	0	0	0
	point71	64	0	0	0	0	0	0	0	0	0	0
	point72	65	0	0	0	0	0	0	0	0	0	0
	point73	66	0	0	0	0	0	0	0	0	0	0
	point74	67	0	0	0	0	0	0	0	0	0	0
	point75	68										
Runabout Pl WB 1"	point80	69	0	0	0	0	0	0	0	0	0	0
	point79	70	0	0	0	0	0	0	0	0	0	0
	point78	71	0	0	0	0	0	0	0	0	0	0
	point77	72	0	0	0	0	0	0	0	0	0	0
	point76	73										
Runabout Pl WB 2"	point81	74	0	0	0	0	0	0	0	0	0	0
	point82	75										
Muncie Ct NB"	point83	76	0	0	0	0	0	0	0	0	0	0
	point84	77	0	0	0	0	0	0	0	0	0	0
	point85	78	0	0	0	0	0	0	0	0	0	0
	point86	79	0	0	0	0	0	0	0	0	0	0
	point87	80	0	0	0	0	0	0	0	0	0	0
	point88	81	0	0	0	0	0	0	0	0	0	0
	point89	82	0	0	0	0	0	0	0	0	0	0
	point90	83	0	0	0	0	0	0	0	0	0	0
	point91	84	0	0	0	0	0	0	0	0	0	0
	point92	85	0	0	0	0	0	0	0	0	0	0
	point93	86	0	0	0	0	0	0	0	0	0	0
	point94	87										
Muncie Ct SB"	point95	88	0	0	0	0	0	0	0	0	0	0
	point96	89										
Monaco Ct WB/ Cord Pl N	point97	90	0	0	0	0	0	0	0	0	0	0
	point98	91	0	0	0	0	0	0	0	0	0	0
	point99	92	0	0	0	0	0	0	0	0	0	0
	point100	93	0	0	0	0	0	0	0	0	0	0
	point101	94	0	0	0	0	0	0	0	0	0	0
	point102	95	0	0	0	0	0	0	0	0	0	0
	point103	96	0	0	0	0	0	0	0	0	0	0
	point104	97	0	0	0	0	0	0	0	0	0	0
	point105	98	0	0	0	0	0	0	0	0	0	0
	point106	99	0	0	0	0	0	0	0	0	0	0
	point107	100	0	0	0	0	0	0	0	0	0	0
	point108	101	0	0	0	0	0	0	0	0	0	0
	point109	102	0	0	0	0	0	0	0	0	0	0
	point110	103	0	0	0	0	0	0	0	0	0	0
	point111	104	0	0	0	0	0	0	0	0	0	0
	point112	105	0	0	0	0	0	0	0	0	0	0
	point113	106										
Monaco Ct EB/ Cord Pl SE	point114	107	0	0	0	0	0	0	0	0	0	0
	point115	108	0	0	0	0	0	0	0	0	0	0
	point116	109	0	0	0	0	0	0	0	0	0	0
	point117	110	0	0	0	0	0	0	0	0	0	0
	point118	111										
Cord Pl SB"	point119	112	0	0	0	0	0	0	0	0	0	0
	point120	113										
Amber Ridge Ln NB"	point121	114	0	0	0	0	0	0	0	0	0	0
	point122	115	0	0	0	0	0	0	0	0	0	0
	point123	116	0	0	0	0	0	0	0	0	0	0
	point124	117	0	0	0	0	0	0	0	0	0	0
	point125	118	0	0	0	0	0	0	0	0	0	0
	point126	119										
Amber Ridge Ln SB 1"	point127	120	0	0	0	0	0	0	0	0	0	0

	point128	121	0	0	0	0	0	0	0	0	0	0
	point129	122	0	0	0	0	0	0	0	0	0	0
	point130	123										
Amber Ridge Ln SB 2"	point131	124	0	0	0	0	0	0	0	0	0	0
	point132	125										
Private Access NB"	point133	126	0	0	1	45	0	0	0	0	0	0
	point134	127	0	0	1	45	0	0	0	0	0	0
	point135	128	0	0	1	45	0	0	0	0	0	0
	point136	129										
Private Access SB 1"	point141	130	0	0	0	0	0	0	0	0	0	0
	point140	131	0	0	0	0	0	0	0	0	0	0
	point139	132	0	0	0	0	0	0	0	0	0	0
	point138	133										
Private Access SB 2"	point143	134	0	0	0	0	0	0	0	0	0	0
	point142	135										

Receivers							Sound Levels		
			Coordinates (pavement)				Calculated Laeq 1hr		
Name	No.	No. of Dwelling Units	x	y	z	Height above ground	Without Barrier	With Barrier	Noise Reduction
			ft	ft	ft	ft	dBA	dBA	dBA
Measurement location	2	1	-653.80	78.60	586.00	5.00	64.4	64.4	0.0

Receivers							Sound Levels		
			Coordinates (pavement)				Calculated Laeq 1hr		
Name	No.	No. of Dwelling Units	x	y	z	Height above ground	Without Barrier	With Barrier	Noise Reduction
			ft	ft	ft	ft	dBA	dBA	dBA
Measurement location	2	1	-653.80	78.60	586.00	5.00	65.1	65.1	0.0
Receiver4"	4	1	-700.00	-325.00	568.00	5.00	50.8	50.8	0.0
Receiver5"	5	1	-650.00	-325.00	565.00	5.00	51.2	51.2	0.0
Receiver6"	6	1	-600.00	-325.00	563.00	5.00	51.7	51.7	0.0
Receiver7"	7	1	-550.00	-325.00	561.00	5.00	52.2	52.2	0.0
Receiver8"	8	1	-500.00	-325.00	559.00	5.00	52.7	52.7	0.0
Receiver9"	9	1	-450.00	-325.00	557.00	5.00	53.5	53.5	0.0
Receiver10"	10	1	-400.00	-325.00	555.00	5.00	54.0	54.0	0.0
Receiver11"	11	1	-350.00	-325.00	553.00	5.00	54.8	54.8	0.0
Receiver12"	12	1	-300.00	-325.00	551.00	5.00	56.1	56.1	0.0
Receiver13"	13	1	-700.00	-275.00	570.50	5.00	51.5	51.5	0.0
Receiver14"	14	1	-650.00	-275.00	567.51	5.00	52.2	52.2	0.0
Receiver15"	15	1	-600.00	-275.00	565.04	5.00	52.7	52.7	0.0
Receiver16"	16	1	-550.00	-275.00	562.57	5.00	53.3	53.3	0.0
Receiver17"	17	1	-500.00	-275.00	560.10	5.00	53.7	53.7	0.0
Receiver18"	18	1	-450.00	-275.00	557.63	5.00	54.4	54.4	0.0
Receiver19"	19	1	-400.00	-275.00	555.16	5.00	55.1	55.1	0.0
Receiver20"	20	1	-350.00	-275.00	552.69	5.00	55.8	55.8	0.0
Receiver21"	21	1	-300.00	-275.00	550.22	5.00	56.5	56.5	0.0
Receiver22"	22	1	-700.00	-225.00	573.00	5.00	52.4	52.4	0.0
Receiver141"	141	1	-650.00	-225.00	570.02	5.00	53.3	53.3	0.0
Receiver142"	142	1	-600.00	-225.00	567.08	5.00	53.7	53.7	0.0
Receiver143"	143	1	-550.00	-225.00	564.14	5.00	54.3	54.3	0.0
Receiver144"	144	1	-500.00	-225.00	561.20	5.00	54.8	54.8	0.0
Receiver145"	145	1	-450.00	-225.00	558.26	5.00	55.3	55.3	0.0
Receiver146"	146	1	-400.00	-225.00	555.32	5.00	56.1	56.1	0.0
Receiver147"	147	1	-350.00	-225.00	552.38	5.00	56.7	56.7	0.0
Receiver148"	148	1	-300.00	-225.00	549.44	5.00	57.4	57.4	0.0
Receiver149"	149	1	-250.00	-225.00	546.50	5.00	58.4	58.4	0.0
Receiver150"	150	1	-700.00	-175.00	575.50	5.00	53.5	53.5	0.0
Receiver151"	151	1	-650.00	-175.00	572.21	5.00	54.2	54.2	0.0
Receiver152"	152	1	-600.00	-175.00	568.94	5.00	54.7	54.7	0.0
Receiver153"	153	1	-550.00	-175.00	565.67	5.00	55.3	55.3	0.0
Receiver154"	154	1	-500.00	-175.00	562.40	5.00	55.9	55.9	0.0
Receiver155"	155	1	-450.00	-175.00	559.13	5.00	56.5	56.5	0.0
Receiver156"	156	1	-400.00	-175.00	555.86	5.00	57.1	57.1	0.0
Receiver157"	157	1	-350.00	-175.00	552.59	5.00	58.1	58.1	0.0
Receiver158"	158	1	-300.00	-175.00	549.32	5.00	58.7	58.7	0.0
Receiver159"	159	1	-250.00	-175.00	546.05	5.00	59.6	59.6	0.0
Receiver160"	160	1	-700.00	-125.00	578.00	5.00	54.7	54.7	0.0
Receiver161"	161	1	-650.00	-125.00	574.40	5.00	55.4	55.4	0.0
Receiver162"	162	1	-600.00	-125.00	570.80	5.00	55.8	55.8	0.0
Receiver163"	163	1	-550.00	-125.00	567.20	5.00	56.6	56.6	0.0
Receiver164"	164	1	-500.00	-125.00	563.60	5.00	57.0	57.0	0.0
Receiver165"	165	1	-450.00	-125.00	560.00	5.00	57.7	57.7	0.0
Receiver166"	166	1	-400.00	-125.00	556.40	5.00	58.4	58.4	0.0
Receiver167"	167	1	-350.00	-125.00	552.80	5.00	59.2	59.2	0.0
Receiver168"	168	1	-300.00	-125.00	549.20	5.00	60.4	60.4	0.0
Receiver169"	169	1	-250.00	-125.00	545.60	5.00	61.6	61.6	0.0
Receiver170"	170	1	-200.00	-125.00	542.00	5.00	63.0	63.0	0.0
Receiver171"	171	1	-700.00	-75.00	580.50	5.00	56.1	56.1	0.0
Receiver172"	172	1	-650.00	-75.00	576.84	5.00	56.8	56.8	0.0
Receiver173"	173	1	-600.00	-75.00	573.20	5.00	57.4	57.4	0.0
Receiver174"	174	1	-550.00	-75.00	569.56	5.00	57.8	57.8	0.0
Receiver175"	175	1	-500.00	-75.00	565.92	5.00	58.6	58.6	0.0
Receiver176"	176	1	-450.00	-75.00	562.28	5.00	59.5	59.5	0.0
Receiver177"	177	1	-400.00	-75.00	558.64	5.00	60.3	60.3	0.0
Receiver178"	178	1	-350.00	-75.00	555.00	5.00	61.4	61.4	0.0
Receiver179"	179	1	-300.00	-75.00	550.40	5.00	63.0	63.0	0.0
Receiver180"	180	1	-250.00	-75.00	545.80	5.00	65.0	65.0	0.0

Receiver181"	181	1	-700.00	-25.00	583.00	5.00	57.7	57.7	0.0
Receiver182"	182	1	-650.00	-25.00	579.28	5.00	58.6	58.6	0.0
Receiver183"	183	1	-600.00	-25.00	575.60	5.00	59.3	59.3	0.0
Receiver184"	184	1	-550.00	-25.00	571.92	5.00	59.6	59.6	0.0
Receiver185"	185	1	-500.00	-25.00	568.24	5.00	60.7	60.7	0.0
Receiver186"	186	1	-450.00	-25.00	564.56	5.00	61.9	61.9	0.0
Receiver187"	187	1	-400.00	-25.00	560.88	5.00	63.3	63.3	0.0
Receiver188"	188	1	-350.00	-25.00	557.20	5.00	65.9	65.9	0.0
Receiver189"	189	1	-700.00	25.00	585.50	5.00	59.8	59.8	0.0
Receiver190"	190	1	-650.00	25.00	582.64	5.00	60.9	60.9	0.0
Receiver191"	191	1	-600.00	25.00	579.78	5.00	62.0	62.0	0.0
Receiver192"	192	1	-550.00	25.00	576.92	5.00	63.3	63.3	0.0
Receiver193"	193	1	-500.00	25.00	574.06	5.00	65.0	65.0	0.0
Receiver194"	194	1	-700.00	75.00	588.00	5.00	63.3	63.3	0.0
Receiver195"	195	1	-650.00	75.00	586.00	5.00	64.8	64.8	0.0
Receiver196"	196	1	-625.00	75.00	584.30	5.00	65.8	65.8	0.0
Receiver197"	197	1	-700.00	100.00	589.00	5.00	66.0	66.0	0.0

EILAR ASSOCIATES: Future Traffic Conditions and Contours

Prepared by	Nozomi Kamiya		
Project Number	A70114N1	Client Name	Hanna Maria, LLC
Project Name	TM5518 Donahue Drive Project	Attention	Kamil Salem
Run Title	Future Traffic Conditions and Contours		

Roadways		Points										
				Coordinates (pavement)			Flow Control			Segment		
Name	Width	Name	No.	x	y	z	Control Device	Speed Constraint	Percent Vehicles Affected	Pavement Type	On Struct?	
	ft			ft	ft	ft		mph	%			
Hillsdale Rd EB	12	point1	1	-1241.0	195.5	600.00				Average		
		point2	2	-932.3	176.8	600.00				Average		
		point3	3	-861.6	163.9	599.00				Average		
		point4	4	-727.9	137.9	593.00				Average		
		point5	5	-518.7	69.7	578.00				Average		
		point6	6	-351.6	4.6	561.00				Average		
		point7	7	-145.6	-87.5	540.00				Average		
		point8	8	-111.1	-102.3	539.00				Average		
		point9	9	136.9	-229.1	525.00				Average		
		point10	10	227.6	-287.9	520.00				Average		
		point11	11	314.3	-364.8	511.00				Average		
		point12	12	403.9	-487.8	497.00						
Hillsdale Rd WB"	12	point13	13	404.8	-458.6	497.00				Average		
		point14	14	340.7	-366.0	508.00				Average		
		point15	15	248.2	-273.6	517.00				Average		
		point16	16	146.6	-209.6	523.00				Average		
		point150	150	-112.3	-79.7	538.00				Average		
		point149	149	-300.9	10.2	556.00				Average		
		point148	148	-358.4	37.0	563.00				Average		
		point147	147	-520.7	104.6	579.00				Average		
		point146	146	-689.9	160.9	592.00				Average		
		point145	145	-749.3	178.3	596.00				Average		
		point144	144	-945.4	212.8	600.00				Average		
		point17	17	-1082.9	226.6	602.00						
Donahue Dr NB 1"	12	point25	18	-998.3	-980.7	545.00				Average		
		point26	19	-953.4	-950.5	545.00				Average		
		point27	20	-894.7	-925.8	545.00				Average		
		point28	21	-826.0	-916.6	545.00				Average		
		point29	22	-629.7	-913.8	547.00				Average		
		point30	23	-605.6	-912.7	547.00				Average		
		point31	24	-538.0	-891.8	551.00				Average		
		point32	25	-481.2	-857.9	553.00				Average		
		point33	26	-422.5	-800.2	555.00				Average		
		point34	27	-380.3	-720.5	558.00				Average		
		point35	28	-360.2	-658.1	558.00				Average		
		point36	29	-348.7	-618.2	558.00				Average		
		point37	30	-256.7	-326.8	551.00				Average		
		point38	31	-147.6	-123.3	540.00						
Donahue Dr NB 2"	12	point39	32	-147.6	-123.3	540.00	Stop	0	100	Average		
		point40	33	-111.1	-102.3	539.00						
Donahue Dr SB"	12	point41	34	-145.6	-87.5	540.00				Average		
		point42	35	-284.1	-335.4	551.00				Average		
		point43	36	-395.7	-705.9	557.00				Average		
		point44	37	-431.7	-773.9	555.00				Average		
		point45	38	-471.5	-817.3	553.00				Average		
		point46	39	-521.0	-856.1	551.00				Average		
		point47	40	-576.4	-879.7	549.00				Average		
		point48	41	-620.0	-889.1	548.00				Average		
		point49	42	-829.7	-895.0	545.00				Average		
		point50	43	-863.9	-895.0	545.00				Average		
		point51	44	-939.3	-915.0	545.00				Average		
		point52	45	-995.8	-949.2	545.00				Average		

		point53	46	-1024.1	-975.1	545.00					
Corona Vis NB 1"	12	point54	47	-1241.5	-219.0	602.00				Average	
		point55	48	-996.1	-217.0	589.00				Average	
		point56	49	-959.6	-229.2	585.00				Average	
		point57	50	-916.4	-222.4	585.00				Average	
		point58	51	-896.1	-178.5	586.00				Average	
		point59	52	-920.5	-129.9	588.00				Average	
		point60	53	-925.2	0.4	594.00				Average	
		point61	54	-914.4	130.0	600.00					
Corona Vis NB 2"	12	point62	55	-914.4	130.0	600.00	Stop	0	100	Average	
		point63	56	-898.1	149.4	600.00				Average	
		point64	57	-861.6	163.9	599.00					
Corona Vis SB"	12	point65	58	-932.3	176.8	600.00				Average	
		point66	59	-939.5	3.2	595.00				Average	
		point67	60	-927.1	-187.5	585.00				Average	
		point68	61	-954.6	-203.9	586.00				Average	
		point69	62	-1241.5	-203.9	602.00					
Runabout Pl EB"	12	point70	63	-360.2	-658.1	558.00				Average	
		point71	64	-128.6	-730.4	571.00				Average	
		point72	65	-4.2	-782.9	575.00				Average	
		point73	66	241.5	-975.0	569.00				Average	
		point74	67	267.9	-995.5	569.00				Average	
		point75	68	373.4	-1080.4	566.00					
Runabout Pl WB 1"	12	point80	69	402.3	-1081.0	566.00				Average	
		point79	70	9.6	-769.2	575.00				Average	
		point78	71	-97.7	-723.8	571.00				Average	
		point77	72	-114.1	-717.5	571.00				Average	
		point76	73	-330.0	-641.8	558.00					
Runabout Pl WB 2"	12	point81	74	-330.0	-641.8	558.00	Stop	0	100	Average	
		point82	75	-348.7	-618.2	558.00					
Muncie Ct NB"	12	point83	76	-97.7	-723.8	571.00				Average	
		point84	77	-37.4	-514.9	561.00				Average	
		point85	78	5.6	-496.5	560.00				Average	
		point86	79	35.2	-503.9	560.00				Average	
		point87	80	57.3	-521.1	560.00				Average	
		point88	81	86.8	-510.0	557.00				Average	
		point89	82	89.3	-484.2	554.00				Average	
		point90	83	64.7	-469.4	554.00				Average	
		point91	84	35.2	-484.2	557.00				Average	
		point92	85	-3.0	-480.5	558.00				Average	
		point93	86	-52.2	-503.9	560.00				Average	
		point94	87	-106.7	-695.3	570					
Muncie Ct SB"	12	point95	88	-106.7	-695.3	570	Stop	0	100	Average	
		point96	89	-114.1	-717.5	571					
Monaco Ct WB/ Cord Pl NB"	12	point97	90	-829.7	-895	545				Average	
		point98	91	-848.2	-867.4	547				Average	
		point99	92	-857.5	-654	557				Average	
		point100	93	-834.9	-627.5	559				Average	
		point101	94	-747.4	-626.2	555				Average	
		point102	95	-679.8	-603.6	554				Average	
		point103	96	-610.9	-541.3	554				Average	
		point104	97	-596.3	-509.5	555				Average	
		point105	98	-610.9	-483	556				Average	
		point106	99	-648	-491	556				Average	
		point107	100	-650.6	-514.8	555				Average	
		point108	101	-646.7	-542.7	554				Average	
		point109	102	-658.1	-568.8	554				Average	
		point110	103	-707	-597.5	554				Average	
		point111	104	-750.7	-611.2	556				Average	
		point112	105	-781.2	-612.5	558				Average	
		point113	106	-1241.5	-603.1	577					
Monaco Ct EB/ Cord Pl SB"	12	point114	107	-1241.5	-618.3	576				Average	
		point115	108	-893.6	-626.5	561				Average	
		point116	109	-873.7	-652.3	558				Average	
		point117	110	-872.5	-788.1	551				Average	
		point118	111	-863.2	-877.1	546					
Cord Pl SB"	12	point119	112	-863.2	-877.1	546	Stop	0	100	Average	
		point120	113	-863.9	-895	545					
Amber Ridge Ln NB"	12	point121	114	-300.9	10.2	556				Average	
		point122	115	-301.4	55.2	557				Average	

		point123	116	-249.3	156.8	556				Average	
		point124	117	-161	259.7	553				Average	
		point125	118	-98.1	334.6	553				Average	
		point126	119	-59.3	408.1	555					
Amber Ridge Ln SB 1"	12	point127	120	-92.8	408.1	556				Average	
		point128	121	-131.6	341.3	554				Average	
		point129	122	-266.6	187.5	557				Average	
		point130	123	-336.2	57.8	561					
Amber Ridge Ln SB 2"	12	point131	124	-336.2	57.8	561	Stop	0	100	Average	
		point132	125	-358.4	37	563					
Private Access NB"	12	point133	126	-689.9	160.9	592				Average	
		point134	127	-708.7	226.1	597				Average	
		point135	128	-702.9	357.9	602				Average	
		point136	129	-692.8	408.6	603					
Private Access SB 1"	12	point141	130	-752.2	386.9	604				Average	
		point140	131	-718.9	356.5	603				Average	
		point139	132	-723.2	250.8	598				Average	
		point138	133	-731.9	203	597					
Private Access SB 2"	12	point143	134	-731.9	203	597	Stop	0	100	Average	
		point142	135	-749.3	178.3	596					

Roadways	Points											
Name	Name	No.	Segment									
			Autos		Mtrucks		Htrucks		Buses		Motorcycles	
			Volume	Speed	Volume	Speed	Volume	Speed	Volume	Speed	Volume	Speed
			veh/hr	mph								
Hillsdale Rd EB	point1	1	186	55	4	55	2	55	0	0	0	0
	point2	2	186	55	4	55	2	55	0	0	0	0
	point3	3	186	55	4	55	2	55	0	0	0	0
	point4	4	186	55	4	55	2	55	0	0	0	0
	point5	5	186	55	4	55	2	55	0	0	0	0
	point6	6	186	55	4	55	2	55	0	0	0	0
	point7	7	141	55	3	55	1	55	0	0	0	0
	point8	8	141	55	3	55	1	55	0	0	0	0
	point9	9	141	55	3	55	1	55	0	0	0	0
	point10	10	141	55	3	55	1	55	0	0	0	0
	point11	11	141	55	3	55	1	55	0	0	0	0
	point12	12										
Hillsdale Rd WB"	point13	13	141	55	3	55	1	55	0	0	0	0
	point14	14	141	55	3	55	1	55	0	0	0	0
	point15	15	141	55	3	55	1	55	0	0	0	0
	point16	16	141	55	3	55	1	55	0	0	0	0
	point150	150	186	55	4	55	2	55	0	0	0	0
	point149	149	186	55	4	55	2	55	0	0	0	0
	point148	148	186	55	4	55	2	55	0	0	0	0
	point147	147	186	55	4	55	2	55	0	0	0	0
	point146	146	186	55	4	55	2	55	0	0	0	0
	point145	145	186	55	4	55	2	55	0	0	0	0
	point144	144	186	55	4	55	2	55	0	0	0	0
	point17	17										
Donahue Dr NB 1"	point25	18	29	25	0	0	0	0	0	0	0	0
	point26	19	29	25	0	0	0	0	0	0	0	0
	point27	20	29	25	0	0	0	0	0	0	0	0
	point28	21	29	25	0	0	0	0	0	0	0	0
	point29	22	29	25	0	0	0	0	0	0	0	0
	point30	23	29	25	0	0	0	0	0	0	0	0
	point31	24	29	25	0	0	0	0	0	0	0	0
	point32	25	29	25	0	0	0	0	0	0	0	0
	point33	26	29	25	0	0	0	0	0	0	0	0
	point34	27	29	25	0	0	0	0	0	0	0	0
	point35	28	29	25	0	0	0	0	0	0	0	0
	point36	29	29	25	0	0	0	0	0	0	0	0
	point37	30	29	25	0	0	0	0	0	0	0	0
	point38	31										
Donahue Dr NB 2"	point39	32	29	25	0	0	0	0	0	0	0	0
	point40	33										
Donahue Dr SB"	point41	34	29	25	0	0	0	0	0	0	0	0
	point42	35	29	25	0	0	0	0	0	0	0	0
	point43	36	29	25	0	0	0	0	0	0	0	0
	point44	37	29	25	0	0	0	0	0	0	0	0
	point45	38	29	25	0	0	0	0	0	0	0	0
	point46	39	29	25	0	0	0	0	0	0	0	0
	point47	40	29	25	0	0	0	0	0	0	0	0
	point48	41	29	25	0	0	0	0	0	0	0	0
	point49	42	29	25	0	0	0	0	0	0	0	0
	point50	43	29	25	0	0	0	0	0	0	0	0
	point51	44	29	25	0	0	0	0	0	0	0	0
	point52	45	29	25	0	0	0	0	0	0	0	0
	point53	46										
Corona Vis NB 1"	point54	47	0	0	0	0	0	0	0	0	0	0
	point55	48	0	0	0	0	0	0	0	0	0	0
	point56	49	0	0	0	0	0	0	0	0	0	0
	point57	50	0	0	0	0	0	0	0	0	0	0
	point58	51	0	0	0	0	0	0	0	0	0	0
	point59	52	0	0	0	0	0	0	0	0	0	0
	point60	53	0	0	0	0	0	0	0	0	0	0
	point61	54										

Corona Vis NB 2"	point62	55	0	0	0	0	0	0	0	0	0	0
	point63	56	0	0	0	0	0	0	0	0	0	0
	point64	57										
Corona Vis SB"	point65	58	0	0	0	0	0	0	0	0	0	0
	point66	59	0	0	0	0	0	0	0	0	0	0
	point67	60	0	0	0	0	0	0	0	0	0	0
	point68	61	0	0	0	0	0	0	0	0	0	0
	point69	62										
Runabout Pl EB"	point70	63	0	0	0	0	0	0	0	0	0	0
	point71	64	0	0	0	0	0	0	0	0	0	0
	point72	65	0	0	0	0	0	0	0	0	0	0
	point73	66	0	0	0	0	0	0	0	0	0	0
	point74	67	0	0	0	0	0	0	0	0	0	0
	point75	68										
Runabout Pl WB 1"	point80	69	0	0	0	0	0	0	0	0	0	0
	point79	70	0	0	0	0	0	0	0	0	0	0
	point78	71	0	0	0	0	0	0	0	0	0	0
	point77	72	0	0	0	0	0	0	0	0	0	0
	point76	73										
Runabout Pl WB 2"	point81	74	0	0	0	0	0	0	0	0	0	0
	point82	75										
Muncie Ct NB"	point83	76	0	0	0	0	0	0	0	0	0	0
	point84	77	0	0	0	0	0	0	0	0	0	0
	point85	78	0	0	0	0	0	0	0	0	0	0
	point86	79	0	0	0	0	0	0	0	0	0	0
	point87	80	0	0	0	0	0	0	0	0	0	0
	point88	81	0	0	0	0	0	0	0	0	0	0
	point89	82	0	0	0	0	0	0	0	0	0	0
	point90	83	0	0	0	0	0	0	0	0	0	0
	point91	84	0	0	0	0	0	0	0	0	0	0
	point92	85	0	0	0	0	0	0	0	0	0	0
	point93	86	0	0	0	0	0	0	0	0	0	0
	point94	87										
Muncie Ct SB"	point95	88	0	0	0	0	0	0	0	0	0	0
	point96	89										
Monaco Ct WB/ Cord Pl N	point97	90	0	0	0	0	0	0	0	0	0	0
	point98	91	0	0	0	0	0	0	0	0	0	0
	point99	92	0	0	0	0	0	0	0	0	0	0
	point100	93	0	0	0	0	0	0	0	0	0	0
	point101	94	0	0	0	0	0	0	0	0	0	0
	point102	95	0	0	0	0	0	0	0	0	0	0
	point103	96	0	0	0	0	0	0	0	0	0	0
	point104	97	0	0	0	0	0	0	0	0	0	0
	point105	98	0	0	0	0	0	0	0	0	0	0
	point106	99	0	0	0	0	0	0	0	0	0	0
	point107	100	0	0	0	0	0	0	0	0	0	0
	point108	101	0	0	0	0	0	0	0	0	0	0
	point109	102	0	0	0	0	0	0	0	0	0	0
	point110	103	0	0	0	0	0	0	0	0	0	0
	point111	104	0	0	0	0	0	0	0	0	0	0
	point112	105	0	0	0	0	0	0	0	0	0	0
	point113	106										
Monaco Ct EB/ Cord Pl SE	point114	107	0	0	0	0	0	0	0	0	0	0
	point115	108	0	0	0	0	0	0	0	0	0	0
	point116	109	0	0	0	0	0	0	0	0	0	0
	point117	110	0	0	0	0	0	0	0	0	0	0
	point118	111										
Cord Pl SB"	point119	112	0	0	0	0	0	0	0	0	0	0
	point120	113										
Amber Ridge Ln NB"	point121	114	0	0	0	0	0	0	0	0	0	0
	point122	115	0	0	0	0	0	0	0	0	0	0
	point123	116	0	0	0	0	0	0	0	0	0	0
	point124	117	0	0	0	0	0	0	0	0	0	0
	point125	118	0	0	0	0	0	0	0	0	0	0
	point126	119										
Amber Ridge Ln SB 1"	point127	120	0	0	0	0	0	0	0	0	0	0

Receivers							Sound Levels		
			Coordinates (pavement)				Calculated Laeq 1hr		
Name	No.	No. of Dwelling Units	x	y	z	Height above ground	Without Barrier	With Barrier	Noise Reduction
			ft	ft	ft	ft	dBA	dBA	dBA
Measurement location	2	1	-653.80	78.60	586.00	5.00	66.4	66.4	0.0
Receiver4"	4	1	-700.00	-325.00	568.00	5.00	52.0	52.0	0.0
Receiver5"	5	1	-650.00	-325.00	565.00	5.00	52.4	52.4	0.0
Receiver6"	6	1	-600.00	-325.00	563.00	5.00	52.9	52.9	0.0
Receiver7"	7	1	-550.00	-325.00	561.00	5.00	53.4	53.4	0.0
Receiver8"	8	1	-500.00	-325.00	559.00	5.00	54.0	54.0	0.0
Receiver9"	9	1	-450.00	-325.00	557.00	5.00	54.7	54.7	0.0
Receiver10"	10	1	-400.00	-325.00	555.00	5.00	55.2	55.2	0.0
Receiver11"	11	1	-350.00	-325.00	553.00	5.00	55.9	55.9	0.0
Receiver12"	12	1	-300.00	-325.00	551.00	5.00	57.0	57.0	0.0
Receiver13"	13	1	-700.00	-275.00	570.50	5.00	52.8	52.8	0.0
Receiver14"	14	1	-650.00	-275.00	567.51	5.00	53.4	53.4	0.0
Receiver15"	15	1	-600.00	-275.00	565.04	5.00	53.9	53.9	0.0
Receiver16"	16	1	-550.00	-275.00	562.57	5.00	54.6	54.6	0.0
Receiver17"	17	1	-500.00	-275.00	560.10	5.00	55.0	55.0	0.0
Receiver18"	18	1	-450.00	-275.00	557.63	5.00	55.7	55.7	0.0
Receiver19"	19	1	-400.00	-275.00	555.16	5.00	56.3	56.3	0.0
Receiver20"	20	1	-350.00	-275.00	552.69	5.00	56.9	56.9	0.0
Receiver21"	21	1	-300.00	-275.00	550.22	5.00	57.6	57.6	0.0
Receiver22"	22	1	-700.00	-225.00	573.00	5.00	53.7	53.7	0.0
Receiver23"	23	1	-650.00	-225.00	570.02	5.00	54.5	54.5	0.0
Receiver24"	24	1	-600.00	-225.00	567.08	5.00	55.0	55.0	0.0
Receiver141"	141	1	-550.00	-225.00	564.14	5.00	55.6	55.6	0.0
Receiver142"	142	1	-500.00	-225.00	561.20	5.00	56.1	56.1	0.0
Receiver143"	143	1	-450.00	-225.00	558.26	5.00	56.6	56.6	0.0
Receiver144"	144	1	-400.00	-225.00	555.32	5.00	57.3	57.3	0.0
Receiver145"	145	1	-350.00	-225.00	552.38	5.00	58.0	58.0	0.0
Receiver146"	146	1	-300.00	-225.00	549.44	5.00	58.6	58.6	0.0
Receiver147"	147	1	-250.00	-225.00	546.50	5.00	59.3	59.3	0.0
Receiver148"	148	1	-700.00	-175.00	575.50	5.00	54.8	54.8	0.0
Receiver149"	149	1	-650.00	-175.00	572.21	5.00	55.4	55.4	0.0
Receiver150"	150	1	-600.00	-175.00	568.94	5.00	56.0	56.0	0.0
Receiver151"	151	1	-550.00	-175.00	565.67	5.00	56.6	56.6	0.0
Receiver152"	152	1	-500.00	-175.00	562.40	5.00	57.1	57.1	0.0
Receiver153"	153	1	-450.00	-175.00	559.13	5.00	57.7	57.7	0.0
Receiver154"	154	1	-400.00	-175.00	555.86	5.00	58.4	58.4	0.0
Receiver155"	155	1	-350.00	-175.00	552.59	5.00	59.3	59.3	0.0
Receiver156"	156	1	-300.00	-175.00	549.32	5.00	59.9	59.9	0.0
Receiver157"	157	1	-250.00	-175.00	546.05	5.00	60.8	60.8	0.0
Receiver158"	158	1	-700.00	-125.00	578.00	5.00	56.0	56.0	0.0
Receiver159"	159	1	-650.00	-125.00	574.40	5.00	56.7	56.7	0.0
Receiver160"	160	1	-600.00	-125.00	570.80	5.00	57.1	57.1	0.0
Receiver161"	161	1	-550.00	-125.00	567.20	5.00	57.8	57.8	0.0
Receiver162"	162	1	-500.00	-125.00	563.60	5.00	58.2	58.2	0.0
Receiver163"	163	1	-450.00	-125.00	560.00	5.00	59.0	59.0	0.0
Receiver164"	164	1	-400.00	-125.00	556.40	5.00	59.6	59.6	0.0
Receiver165"	165	1	-350.00	-125.00	552.80	5.00	60.5	60.5	0.0
Receiver166"	166	1	-300.00	-125.00	549.20	5.00	61.7	61.7	0.0
Receiver167"	167	1	-250.00	-125.00	545.60	5.00	62.8	62.8	0.0
Receiver168"	168	1	-200.00	-125.00	542.00	5.00	64.2	64.2	0.0
Receiver169"	169	1	-700.00	-75.00	580.50	5.00	57.4	57.4	0.0
Receiver170"	170	1	-650.00	-75.00	576.84	5.00	58.2	58.2	0.0
Receiver171"	171	1	-600.00	-75.00	573.20	5.00	58.7	58.7	0.0
Receiver172"	172	1	-550.00	-75.00	569.56	5.00	59.2	59.2	0.0
Receiver173"	173	1	-500.00	-75.00	565.92	5.00	60.0	60.0	0.0
Receiver174"	174	1	-450.00	-75.00	562.28	5.00	60.9	60.9	0.0
Receiver175"	175	1	-400.00	-75.00	558.64	5.00	61.6	61.6	0.0
Receiver176"	176	1	-350.00	-75.00	555.00	5.00	62.7	62.7	0.0
Receiver177"	177	1	-300.00	-75.00	550.40	5.00	64.3	64.3	0.0
Receiver178"	178	1	-250.00	-75.00	545.80	5.00	66.4	66.4	0.0

Receiver179"	179	1	-700.00	-25.00	583.00	5.00	59.0	59.0	0.0
Receiver180"	180	1	-650.00	-25.00	579.28	5.00	59.9	59.9	0.0
Receiver181"	181	1	-600.00	-25.00	575.60	5.00	60.5	60.5	0.0
Receiver182"	182	1	-550.00	-25.00	571.92	5.00	60.9	60.9	0.0
Receiver183"	183	1	-500.00	-25.00	568.24	5.00	62.0	62.0	0.0
Receiver184"	184	1	-450.00	-25.00	564.56	5.00	63.2	63.2	0.0
Receiver185"	185	1	-400.00	-25.00	560.88	5.00	64.6	64.6	0.0
Receiver186"	186	1	-350.00	-25.00	557.20	5.00	67.2	67.2	0.0
Receiver187"	187	1	-700.00	25.00	585.50	5.00	61.1	61.1	0.0
Receiver188"	188	1	-650.00	25.00	582.64	5.00	62.3	62.3	0.0
Receiver189"	189	1	-600.00	25.00	579.78	5.00	63.3	63.3	0.0
Receiver190"	190	1	-550.00	25.00	576.92	5.00	64.6	64.6	0.0
Receiver191"	191	1	-500.00	25.00	574.06	5.00	66.3	66.3	0.0
Receiver192"	192	1	-700.00	75.00	588.00	5.00	64.6	64.6	0.0
Receiver193"	193	1	-650.00	75.00	586.00	5.00	66.1	66.1	0.0
Receiver194"	194	1	-625.00	75.00	584.30	5.00	67.1	67.1	0.0
Receiver195"	195	1	-700.00	100.00	589.00	5.00	67.3	67.3	0.0

Receiver179"	179	1	-700.00	-25.00	583.00	5.00	59.0	59.0	0.0
Receiver180"	180	1	-650.00	-25.00	579.28	5.00	59.9	59.9	0.0
Receiver181"	181	1	-600.00	-25.00	575.60	5.00	60.5	60.5	0.0
Receiver182"	182	1	-550.00	-25.00	571.92	5.00	60.9	60.9	0.0
Receiver183"	183	1	-500.00	-25.00	568.24	5.00	62.0	62.0	0.0
Receiver184"	184	1	-450.00	-25.00	564.56	5.00	63.2	63.2	0.0
Receiver185"	185	1	-400.00	-25.00	560.88	5.00	64.6	64.6	0.0
Receiver186"	186	1	-350.00	-25.00	557.20	5.00	67.2	67.2	0.0
Receiver187"	187	1	-700.00	25.00	585.50	5.00	61.1	61.1	0.0
Receiver188"	188	1	-650.00	25.00	582.64	5.00	62.3	62.3	0.0
Receiver189"	189	1	-600.00	25.00	579.78	5.00	63.3	63.3	0.0
Receiver190"	190	1	-550.00	25.00	576.92	5.00	64.6	64.6	0.0
Receiver191"	191	1	-500.00	25.00	574.06	5.00	66.3	66.3	0.0
Receiver192"	192	1	-700.00	75.00	588.00	5.00	64.6	64.6	0.0
Receiver193"	193	1	-650.00	75.00	586.00	5.00	66.1	66.1	0.0
Receiver194"	194	1	-625.00	75.00	584.30	5.00	67.1	67.1	0.0
Receiver195"	195	1	-700.00	100.00	589.00	5.00	67.3	67.3	0.0

EILAR ASSOCIATES: Noise Impact on Building Facades

Prepared by	Nozomi Kamiya		
Project Number	A70114N1	Client Name	Hanna Maria, LLC
Project Name	TM5518 Donahue Drive Project	Attention	Kamil Salem
Run Title	Vehicular Noise Impact on Center of Pads and Mitigation Requirements		

Roadways		Points									
				Coordinates (pavement)			Flow Control			Segment	
Name	Width	Name	No.	x	y	z	Control Device	Speed Constraint	Percent Vehicles Affected	Pavement Type	On Struct?
	ft			ft	ft	ft		mph	%		
Hillsdale Rd EB	12	point1	1	-1241.0	195.5	600.00				Average	
		point2	2	-932.3	176.8	600.00				Average	
		point3	3	-861.6	163.9	599.00				Average	
		point4	4	-727.9	137.9	593.00				Average	
		point5	5	-518.7	69.7	578.00				Average	
		point6	6	-351.6	4.6	561.00				Average	
		point7	7	-145.6	-87.5	540.00				Average	
		point8	8	-111.1	-102.3	539.00				Average	
		point9	9	136.9	-229.1	525.00				Average	
		point10	10	227.6	-287.9	520.00				Average	
		point11	11	314.3	-364.8	511.00				Average	
		point12	12	403.9	-487.8	497.00					
Hillsdale Rd WB"	12	point13	13	404.8	-458.6	497.00				Average	
		point14	14	340.7	-366.0	508.00				Average	
		point15	15	248.2	-273.6	517.00				Average	
		point16	16	146.6	-209.6	523.00				Average	
		point150	150	-112.3	-79.7	538.00				Average	
		point149	149	-300.9	10.2	556.00				Average	
		point148	148	-358.4	37.0	563.00				Average	
		point147	147	-520.7	104.6	579.00				Average	
		point146	146	-689.9	160.9	592.00				Average	
		point145	145	-749.3	178.3	596.00				Average	
		point144	144	-945.4	212.8	600.00				Average	
		point17	17	-1082.9	226.6	602.00					
Donahue Dr NB 1"	12	point18	18	-998.3	-980.7	545.00				Average	
		point19	19	-953.4	-950.5	545.00				Average	
		point20	20	-894.7	-925.8	545.00				Average	
		point21	21	-826.0	-916.6	545.00				Average	
		point22	22	-629.7	-913.8	547.00				Average	
		point23	23	-605.6	-912.7	547.00				Average	
		point24	24	-538.0	-891.8	551.00				Average	
		point25	25	-481.2	-857.9	553.00				Average	
		point26	26	-422.5	-800.2	555.00				Average	
		point27	27	-380.3	-720.5	558.00				Average	
		point28	28	-360.2	-658.1	558.00				Average	
		point29	29	-348.7	-618.2	558.00				Average	
		point30	30	-256.7	-326.8	551.00				Average	
		point31	31	-147.6	-123.3	540.00					
Donahue Dr NB 2"	12	point32	32	-147.6	-123.3	540.00	Stop	0	100	Average	
		point33	33	-111.1	-102.3	539.00					
Donahue Dr SB"	12	point34	34	-145.6	-87.5	540.00				Average	
		point35	35	-284.1	-335.4	551.00				Average	
		point36	36	-395.7	-705.9	557.00				Average	
		point37	37	-431.7	-773.9	555.00				Average	
		point38	38	-471.5	-817.3	553.00				Average	
		point39	39	-521.0	-856.1	551.00				Average	
		point40	40	-576.4	-879.7	549.00				Average	
		point41	41	-620.0	-889.1	548.00				Average	
		point42	42	-829.7	-895.0	545.00				Average	
		point43	43	-863.9	-895.0	545.00				Average	
		point44	44	-939.3	-915.0	545.00				Average	
		point45	45	-995.8	-949.2	545.00				Average	

		point46	46	-1024.1	-975.1	545.00					
Corona Vis NB 1"	12	point47	47	-1241.5	-219.0	602.00				Average	
		point48	48	-996.1	-217.0	589.00				Average	
		point49	49	-959.6	-229.2	585.00				Average	
		point50	50	-916.4	-222.4	585.00				Average	
		point51	51	-896.1	-178.5	586.00				Average	
		point52	52	-920.5	-129.9	588.00				Average	
		point53	53	-925.2	0.4	594.00				Average	
		point54	54	-914.4	130.0	600.00					
Corona Vis NB 2"	12	point55	55	-914.4	130.0	600.00	Stop	0	100	Average	
		point56	56	-898.1	149.4	600.00				Average	
		point57	57	-861.6	163.9	599.00					
Corona Vis SB"	12	point58	58	-932.3	176.8	600.00				Average	
		point59	59	-939.5	3.2	595.00				Average	
		point60	60	-927.1	-187.5	585.00				Average	
		point61	61	-954.6	-203.9	586.00				Average	
		point62	62	-1241.5	-203.9	602.00					
Runabout Pl EB"	12	point63	63	-360.2	-658.1	558.00				Average	
		point64	64	-128.6	-730.4	571.00				Average	
		point65	65	-4.2	-782.9	575.00				Average	
		point66	66	241.5	-975.0	569.00				Average	
		point67	67	267.9	-995.5	569.00				Average	
		point68	68	373.4	-1080.4	566.00					
Runabout Pl WB 1"	12	point69	69	402.3	-1081.0	566.00				Average	
		point70	70	9.6	-769.2	575.00				Average	
		point71	71	-97.7	-723.8	571.00				Average	
		point72	72	-114.1	-717.5	571.00				Average	
		point73	73	-330.0	-641.8	558.00					
Runabout Pl WB 2"	12	point74	74	-330.0	-641.8	558.00	Stop	0	100	Average	
		point75	75	-348.7	-618.2	558.00					
Muncie Ct NB"	12	point76	76	-97.7	-723.8	571.00				Average	
		point77	77	-37.4	-514.9	561.00				Average	
		point78	78	5.6	-496.5	560.00				Average	
		point79	79	35.2	-503.9	560.00				Average	
		point80	80	57.3	-521.1	560.00				Average	
		point81	81	86.8	-510.0	557.00				Average	
		point82	82	89.3	-484.2	554.00				Average	
		point83	83	64.7	-469.4	554.00				Average	
		point84	84	35.2	-484.2	557.00				Average	
		point85	85	-3.0	-480.5	558.00				Average	
		point86	86	-52.2	-503.9	560.00				Average	
		point87	87	-106.7	-695.3	570					
Muncie Ct SB"	12	point88	88	-106.7	-695.3	570	Stop	0	100	Average	
		point89	89	-114.1	-717.5	571					
Monaco Ct WB/ Cord Pl NB"	12	point90	90	-829.7	-895	545				Average	
		point91	91	-848.2	-867.4	547				Average	
		point92	92	-857.5	-654	557				Average	
		point93	93	-834.9	-627.5	559				Average	
		point94	94	-747.4	-626.2	555				Average	
		point95	95	-679.8	-603.6	554				Average	
		point96	96	-610.9	-541.3	554				Average	
		point97	97	-596.3	-509.5	555				Average	
		point98	98	-610.9	-483	556				Average	
		point99	99	-648	-491	556				Average	
		point100	100	-650.6	-514.8	555				Average	
		point101	101	-646.7	-542.7	554				Average	
		point102	102	-658.1	-568.8	554				Average	
		point103	103	-707	-597.5	554				Average	
		point104	104	-750.7	-611.2	556				Average	
		point105	105	-781.2	-612.5	558				Average	
		point106	106	-1241.5	-603.1	577					
Monaco Ct EB/ Cord Pl SB"	12	point107	107	-1241.5	-618.3	576				Average	
		point108	108	-893.6	-626.5	561				Average	
		point109	109	-873.7	-652.3	558				Average	
		point110	110	-872.5	-788.1	551				Average	
		point111	111	-863.2	-877.1	546					
Cord Pl SB"	12	point112	112	-863.2	-877.1	546	Stop	0	100	Average	
		point113	113	-863.9	-895	545					
Amber Ridge Ln NB"	12	point114	114	-300.9	10.2	556				Average	
		point115	115	-301.4	55.2	557				Average	

		point116	116	-249.3	156.8	556				Average	
		point117	117	-161	259.7	553				Average	–
		point118	118	-98.1	334.6	553				Average	
		point119	119	-59.3	408.1	555					
Amber Ridge Ln SB 1"	12	point120	120	-92.8	408.1	556				Average	
		point121	121	-131.6	341.3	554				Average	
		point122	122	-266.6	187.5	557				Average	
		point123	123	-336.2	57.8	561					
Amber Ridge Ln SB 2"	12	point124	124	-336.2	57.8	561	Stop	0	100	Average	
		point125	125	-358.4	37	563					
Private Access NB"	12	point126	126	-689.9	160.9	592				Average	
		point127	127	-708.7	226.1	597				Average	
		point128	128	-702.9	357.9	602				Average	
		point129	129	-692.8	408.6	603					
Private Access SB 1"	12	point130	130	-752.2	386.9	604				Average	
		point131	131	-718.9	356.5	603				Average	
		point132	132	-723.2	250.8	598				Average	—
		point133	133	-731.9	203	597					
Private Access SB 2"	12	point134	134	-731.9	203	597	Stop	0	100	Average	
		point135	135	-749.3	178.3	596					

Roadways	Points											
			Segment									
			Autos		Mtrucks		Htrucks		Buses		Motorcycles	
Name	Name	No.	Volume	Speed	Volume	Speed	Volume	Speed	Volume	Speed	Volume	Speed
			veh/hr	mph								
Hillsdale Rd EB	point1	1	186	55	4	55	2	55	0	0	0	0
	point2	2	186	55	4	55	2	55	0	0	0	0
	point3	3	186	55	4	55	2	55	0	0	0	0
	point4	4	186	55	4	55	2	55	0	0	0	0
	point5	5	186	55	4	55	2	55	0	0	0	0
	point6	6	186	55	4	55	2	55	0	0	0	0
	point7	7	141	55	3	55	1	55	0	0	0	0
	point8	8	141	55	3	55	1	55	0	0	0	0
	point9	9	141	55	3	55	1	55	0	0	0	0
	point10	10	141	55	3	55	1	55	0	0	0	0
	point11	11	141	55	3	55	1	55	0	0	0	0
	point12	12										
Hillsdale Rd WB"	point13	13	141	55	3	55	1	55	0	0	0	0
	point14	14	141	55	3	55	1	55	0	0	0	0
	point15	15	141	55	3	55	1	55	0	0	0	0
	point16	16	141	55	3	55	1	55	0	0	0	0
	point150	150	186	55	4	55	2	55	0	0	0	0
	point149	149	186	55	4	55	2	55	0	0	0	0
	point148	148	186	55	4	55	2	55	0	0	0	0
	point147	147	186	55	4	55	2	55	0	0	0	0
	point146	146	186	55	4	55	2	55	0	0	0	0
	point145	145	186	55	4	55	2	55	0	0	0	0
	point144	144	186	55	4	55	2	55	0	0	0	0
	point17	17										
Donahue Dr NB 1"	point18	18	29	25	0	0	0	0	0	0	0	0
	point19	19	29	25	0	0	0	0	0	0	0	0
	point20	20	29	25	0	0	0	0	0	0	0	0
	point21	21	29	25	0	0	0	0	0	0	0	0
	point22	22	29	25	0	0	0	0	0	0	0	0
	point23	23	29	25	0	0	0	0	0	0	0	0
	point24	24	29	25	0	0	0	0	0	0	0	0
	point25	25	29	25	0	0	0	0	0	0	0	0
	point26	26	29	25	0	0	0	0	0	0	0	0
	point27	27	29	25	0	0	0	0	0	0	0	0
	point28	28	29	25	0	0	0	0	0	0	0	0
	point29	29	29	25	0	0	0	0	0	0	0	0
	point30	30	29	25	0	0	0	0	0	0	0	0
	point31	31										
Donahue Dr NB 2"	point32	32	29	25	0	0	0	0	0	0	0	0
	point33	33										
Donahue Dr SB"	point34	34	29	25	0	0	0	0	0	0	0	0
	point35	35	29	25	0	0	0	0	0	0	0	0
	point36	36	29	25	0	0	0	0	0	0	0	0
	point37	37	29	25	0	0	0	0	0	0	0	0
	point38	38	29	25	0	0	0	0	0	0	0	0
	point39	39	29	25	0	0	0	0	0	0	0	0
	point40	40	29	25	0	0	0	0	0	0	0	0
	point41	41	29	25	0	0	0	0	0	0	0	0
	point42	42	29	25	0	0	0	0	0	0	0	0
	point43	43	29	25	0	0	0	0	0	0	0	0
	point44	44	29	25	0	0	0	0	0	0	0	0
	point45	45	29	25	0	0	0	0	0	0	0	0
	point46	46										
Corona Vis NB 1"	point47	47	0	0	0	0	0	0	0	0	0	0
	point48	48	0	0	0	0	0	0	0	0	0	0
	point49	49	0	0	0	0	0	0	0	0	0	0
	point50	50	0	0	0	0	0	0	0	0	0	0
	point51	51	0	0	0	0	0	0	0	0	0	0
	point52	52	0	0	0	0	0	0	0	0	0	0
	point53	53	0	0	0	0	0	0	0	0	0	0
	point54	54										

Corona Vis NB 2"	point55	55	0	0	0	0	0	0	0	0	0	0
	point56	56	0	0	0	0	0	0	0	0	0	0
	point57	57										
Corona Vis SB"	point58	58	0	0	0	0	0	0	0	0	0	0
	point59	59	0	0	0	0	0	0	0	0	0	0
	point60	60	0	0	0	0	0	0	0	0	0	0
	point61	61	0	0	0	0	0	0	0	0	0	0
	point62	62										
Runabout Pl EB"	point63	63	0	0	0	0	0	0	0	0	0	0
	point64	64	0	0	0	0	0	0	0	0	0	0
	point65	65	0	0	0	0	0	0	0	0	0	0
	point66	66	0	0	0	0	0	0	0	0	0	0
	point67	67	0	0	0	0	0	0	0	0	0	0
	point68	68										
Runabout Pl WB 1"	point69	69	0	0	0	0	0	0	0	0	0	0
	point70	70	0	0	0	0	0	0	0	0	0	0
	point71	71	0	0	0	0	0	0	0	0	0	0
	point72	72	0	0	0	0	0	0	0	0	0	0
	point73	73										
Runabout Pl WB 2"	point74	74	0	0	0	0	0	0	0	0	0	0
	point75	75										
Muncie Ct NB"	point76	76	0	0	0	0	0	0	0	0	0	0
	point77	77	0	0	0	0	0	0	0	0	0	0
	point78	78	0	0	0	0	0	0	0	0	0	0
	point79	79	0	0	0	0	0	0	0	0	0	0
	point80	80	0	0	0	0	0	0	0	0	0	0
	point81	81	0	0	0	0	0	0	0	0	0	0
	point82	82	0	0	0	0	0	0	0	0	0	0
	point83	83	0	0	0	0	0	0	0	0	0	0
	point84	84	0	0	0	0	0	0	0	0	0	0
	point85	85	0	0	0	0	0	0	0	0	0	0
	point86	86	0	0	0	0	0	0	0	0	0	0
	point87	87										
Muncie Ct SB"	point88	88	0	0	0	0	0	0	0	0	0	0
	point89	89										
Monaco Ct WB/ Cord Pl N	point90	90	0	0	0	0	0	0	0	0	0	0
	point91	91	0	0	0	0	0	0	0	0	0	0
	point92	92	0	0	0	0	0	0	0	0	0	0
	point93	93	0	0	0	0	0	0	0	0	0	0
	point94	94	0	0	0	0	0	0	0	0	0	0
	point95	95	0	0	0	0	0	0	0	0	0	0
	point96	96	0	0	0	0	0	0	0	0	0	0
	point97	97	0	0	0	0	0	0	0	0	0	0
	point98	98	0	0	0	0	0	0	0	0	0	0
	point99	99	0	0	0	0	0	0	0	0	0	0
	point100	100	0	0	0	0	0	0	0	0	0	0
	point101	101	0	0	0	0	0	0	0	0	0	0
	point102	102	0	0	0	0	0	0	0	0	0	0
	point103	103	0	0	0	0	0	0	0	0	0	0
	point104	104	0	0	0	0	0	0	0	0	0	0
	point105	105	0	0	0	0	0	0	0	0	0	0
	point106	106										
Monaco Ct EB/ Cord Pl SE	point107	107	0	0	0	0	0	0	0	0	0	0
	point108	108	0	0	0	0	0	0	0	0	0	0
	point109	109	0	0	0	0	0	0	0	0	0	0
	point110	110	0	0	0	0	0	0	0	0	0	0
	point111	111										
Cord Pl SB"	point112	112	0	0	0	0	0	0	0	0	0	0
	point113	113										
Amber Ridge Ln NB"	point114	114	0	0	0	0	0	0	0	0	0	0
	point115	115	0	0	0	0	0	0	0	0	0	0
	point116	116	0	0	0	0	0	0	0	0	0	0
	point117	117	0	0	0	0	0	0	0	0	0	0
	point118	118	0	0	0	0	0	0	0	0	0	0
	point119	119										
Amber Ridge Ln SB 1"	point120	120	0	0	0	0	0	0	0	0	0	0

	point121	121	0	0	0	0	0	0	0	0	0	0
	point122	122	0	0	0	0	0	0	0	0	0	0
	point123	123										
Amber Ridge Ln SB 2"	point124	124	0	0	0	0	0	0	0	0	0	0
	point125	125										
Private Access NB"	point126	126	0	0	1	45	0	0	0	0	0	0
	point127	127	0	0	1	45	0	0	0	0	0	0
	point128	128	0	0	1	45	0	0	0	0	0	0
	point129	129										
Private Access SB 1"	point130	130	0	0	0	0	0	0	0	0	0	0
	point131	131	0	0	0	0	0	0	0	0	0	0
	point132	132	0	0	0	0	0	0	0	0	0	0
	point133	133										
Private Access SB 2"	point134	134	0	0	0	0	0	0	0	0	0	0
	point135	135										

Barriers				Points									
		If berm				Coordinates			Height at point	Segment			
Name	Type	top width	run: rise	Name	No.	x	y	z		Segment height pertubation			On Struct?
										Incre-ment	# Up	# Dn	
		ft	ft:ft			ft	ft	ft	ft	ft			
South barrier	W	0		point1	1	-742.1	-347.9	568.0	6.0	0	0	0	
				point2	2	-417.8	-346.7	555.0	6.0	0	0	0	
				point3	3	-409.4	-328.7	555.0	6.0	0	0	0	
				point4	4	-325.6	-335.9	551.0	6.0	0	0	0	
				point5	5	-311.3	-351.5	551.0	6.0	0	0	0	
				point6	6	-311.3	-364.6	551.0	6.0	0	0	0	
				point7	7	-343.6	-473.5	552.0	6.0				
East barrier"	W	0		point8	8	-871.5	83.9	598.0	6.0	0	0	0	
				point9	9	-869.4	108.2	598.0	6.0	0	0	0	
				point10	10	-847.2	124.0	598.0	6.0	0	0	0	
				point11	11	-734.1	97.6	598.0	6.0	0	0	0	
				point12	12	-745.7	-3.9	597.0	6.0	0	0	0	
				point13	13	-748.6	-27.2	592.0	6.0	0	0	0	
				point14	14	-756.4	-150.9	592.0	6.0	0	0	0	
				point15	15	-767.3	-185.2	584.0	6.0	0	0	0	
				point16	16	-754.1	-193.5	584.0	6.0	0	0	0	
				point17	17	-757.7	-247.4	584.0	6.0	0	0	0	
				point18	18	-779.2	-291.6	584.0	6.0	0	0	0	
				point19	19	-822.3	-347.9	583.0	6.0	0	0	0	
				point20	20	-854.6	-367.0	583.0	6.0	0	0	0	
				point21	21	-908.5	-379.0	583.0	6.0	0	0	0	
				point22	22	-985.1	-383.8	582.0	6.0				
Barrier3"	W	0		point23	23	-842.5	73.7	597.0	30.0	0	0	0	
				point24	24	-843.7	8.4	597.0	30.0	0	0	0	
				point25	25	-795.9	8.4	597.0	30.0	0	0	0	
				point26	26	-791.2	14.2	597.0	30.0	0	0	0	
				point27	27	-756.2	15.4	597.0	30.0	0	0	0	
				point28	28	-753.9	49.2	597.0	30.0	0	0	0	
				point29	29	-802.8	73.7	597.0	30.0	0	0	0	
				point30	30	-842.5	73.7	597.0	30.0				
Barrier4"	W	0		point31	31	-853.0	-12.6	592.0	30.0	0	0	0	
				point32	32	-861.2	-124.5	592.0	30.0	0	0	0	
				point33	33	-770.2	-124.5	592.0	30.0	0	0	0	
				point34	34	-770.2	-95.3	592.0	30.0	0	0	0	
				point35	35	-788.9	-96.5	592.0	30.0	0	0	0	
				point36	36	-787.7	-14.9	592.0	30.0	0	0	0	
				point37	37	-853.0	-12.6	592.0	30.0				
Barrier5"	W	0		point38	38	-804.0	-162.9	584.0	30.0	0	0	0	
				point39	39	-851.8	-224.7	584.0	30.0	0	0	0	
				point40	40	-787.7	-251.5	584.0	30.0	0	0	0	
				point41	41	-757.4	-193.3	584.0	30.0	0	0	0	
				point42	42	-804.0	-162.9	584.0	30.0				
Barrier6"	W	0		point43	43	-898.5	-269.0	583.0	30.0	0	0	0	
				point44	44	-869.3	-333.1	583.0	30.0	0	0	0	
				point45	45	-811.0	-309.8	583.0	30.0	0	0	0	
				point46	46	-827.3	-265.5	583.0	30.0	0	0	0	
				point47	47	-858.8	-278.3	583.0	30.0	0	0	0	
				point48	48	-867.0	-257.4	583.0	30.0	0	0	0	
				point49	49	-898.5	-269.0	583.0	30.0				
Barrier7"	W	0		point50	50	-664.1	-387.9	562.0	25.0	0	0	0	
				point51	51	-665.2	-439.2	560.0	27.0	0	0	0	
				point52	52	-606.9	-439.2	557.0	30.0	0	0	0	
				point53	53	-602.3	-389.1	558.0	29.0	0	0	0	
				point54	54	-664.1	-387.9	562.0	25.0				

Barrier8"	W	0		point55	55	-528.8	-373.9	558.0	26.0	0	0	0	
				point56	56	-587.1	-443.9	557.0	25.0	0	0	0	
				point57	57	-542.8	-476.5	557.0	25.0	0	0	0	
				point58	58	-492.6	-397.2	558.0	26.0	0	0	0	
				point59	59	-528.8	-373.9	558.0	26.0				
Barrier9"	W	0		point60	60	-394.7	-344.8	554.0	28.0	0	0	0	
				point61	61	-416.8	-405.4	554.0	28.0	0	0	0	
				point62	62	-355.0	-420.6	551.0	25.0	0	0	0	
				point63	63	-337.5	-364.6	551.0	25.0	0	0	0	
				point64	64	-394.7	-344.8	554.0	28.0				
North barrier"	W	0		point65	65	-844.9	378.2	607.0	5.0	0	0	0	
				point66	66	-807.3	378.2	606.0	5.0	0	0	0	
				point67	67	-763.8	368.1	605.0	5.0	0	0	0	
				point68	68	-737.7	355.0	605.0	5.0	0	0	0	
				point69	69	-730.4	327.5	604.0	5.0	0	0	0	
				point70	70	-736.2	252.2	604.0	5.0	0	0	0	
				point71	71	-869.6	268.1	604.0	5.0	0	0	0	
				point72	72	-953.6	275.4	604.0	5.0				
NEW BARRIER"	W	0		point73	73	-708.6	103.6	589.0	2.0	1	0	0	
				point74	74	-680.1	94.2	587.0	2.0	1	0	0	
				point75	75	-651.6	85.4	586.5	2.0	1	0	0	
				point76	76	-544.8	50.2	578.0	2.0	1	0	0	
				point77	77	-477.9	25.2	571.1	2.0	1	0	0	
				point78	78	-477.8	25.1	571.1	2.5	1	0	0	
				point79	79	-379.9	-11.3	561.0	2.5	1	0	0	
				point83	83	-338.9	-31.0	556.2	2.5	1	0	0	
				point80	80	-338.8	-31.0	556.2	2.5	1	0	0	
				point81	81	-226.9	-94.9	554.0	2.5	1	0	0	
				point82	82	-274.9	-221.4	554.0	2.5				

Terrain Lines	Points			
Name	No.	Coordinates (ground)		
		x	y	z
		ft	ft	ft
Terrain Line1	1	-544.8	50.2	578.0
	2	-651.6	85.4	586.5
	3	-680.1	94.2	587.0
	4	-708.6	103.6	589.0
	5	-708.5	-27.1	583.0
	6	-708.1	-326.6	568.0
	7	-296.2	-326.7	551.0
	8	-197.7	-121.7	542.0
	9	-200.5	-100.6	542.0
	10	-217.3	-89.1	542.0
	11	-379.9	-11.3	561
	12	-544.8	50.2	578
Lot 1"	13	-490.9	-198.4	559
	14	-452.5	-204.1	559
	15	-318.1	-307.6	559
	16	-514.9	-319.1	559
	17	-514.9	-209.9	559
	18	-490.9	-198.4	559
Lot 2 - 4"	19	-634.9	54.7	567
	20	-495.7	20.2	567
	21	-519.7	-94.9	567
	22	-538.9	-97.7	567
	23	-562.9	-109.2	567
	24	-577.3	-138	567
	25	-577.3	-169.6	567
	26	-558.1	-204.1	567
	27	-529.3	-209.9	567
	28	-534.1	-301.9	567
	29	-697.3	-319.1	567
	30	-702.1	-209.9	567
	31	-682.9	14.4	567
	32	-668.5	43.2	567
	33	-634.9	54.7	567
Lot 5"	34	-486.1	2.9	560
	35	-346.9	-40.2	560
	36	-399.7	-158.1	560
	37	-486.1	-129.4	560
	38	-495.7	-112.1	560
	39	-510.1	-100.6	560
	40	-486.1	2.9	560
Lot 6"	41	-342.1	-48.9	554
	42	-226.9	-94.9	554
	43	-274.9	-221.4	554
	44	-390.1	-184	554
	45	-342.1	-48.9	554

Receivers							Sound Levels		
			Coordinates (pavement)				Calculated Laeq 1hr		
Name	No.	No. of Dwelling Units	x	y	z	Height above ground	Without Barrier	With Barrier	Noise Reduction
			ft	ft	ft	ft	dBA	dBA	dBA
Measurement location	2	1	-653.80	78.60	586.00	5.00	66.4	66.4	-8.0
R1 Lot1 1st flr"	4	1	-454.40	-244.60	559.00	5.00	54.9	54.0	-7.1
R2 Lot1 2nd flr"	5	1	-454.40	-244.60	559.00	15.00	55.6	55.1	-7.5
R3 Lot2 1st flr"	6	1	-633.60	-229.20	567.00	5.00	53.1	51.4	-6.3
R4 Lot2 2nd flr"	7	1	-633.60	-229.20	567.00	15.00	54.3	53.3	-7.0
R5 Lot3 1st flr"	8	1	-657.60	-88.00	567.00	5.00	55.2	52.9	-5.7
R6 Lot3 2nd flr"	9	1	-657.60	-88.00	567.00	15.00	57.1	54.5	-5.4
R7 Lot4 1st flr"	10	1	-571.70	-29.20	567.00	5.00	59.1	55.9	-4.8
R8 Lot4 2nd flr"	11	1	-571.70	-29.20	567.00	15.00	61.2	60.7	-7.5
R9 Lot5 1st flr"	12	1	-443.50	-77.90	560.00	5.00	60.0	57.4	-5.4
R10 Lot5 2nd flr"	13	1	-443.50	-77.90	560.00	15.00	61.4	61.2	-7.8
R11 Lot6 1st flr"	14	1	-312.80	-130.60	554.00	5.00	59.4	57.7	-6.3
R12 Lot6 2nd flr"	15	1	-312.80	-130.60	554.00	15.00	61.3	60.6	-7.3

APPENDIX C

County of San Diego Roadway Classification Changes

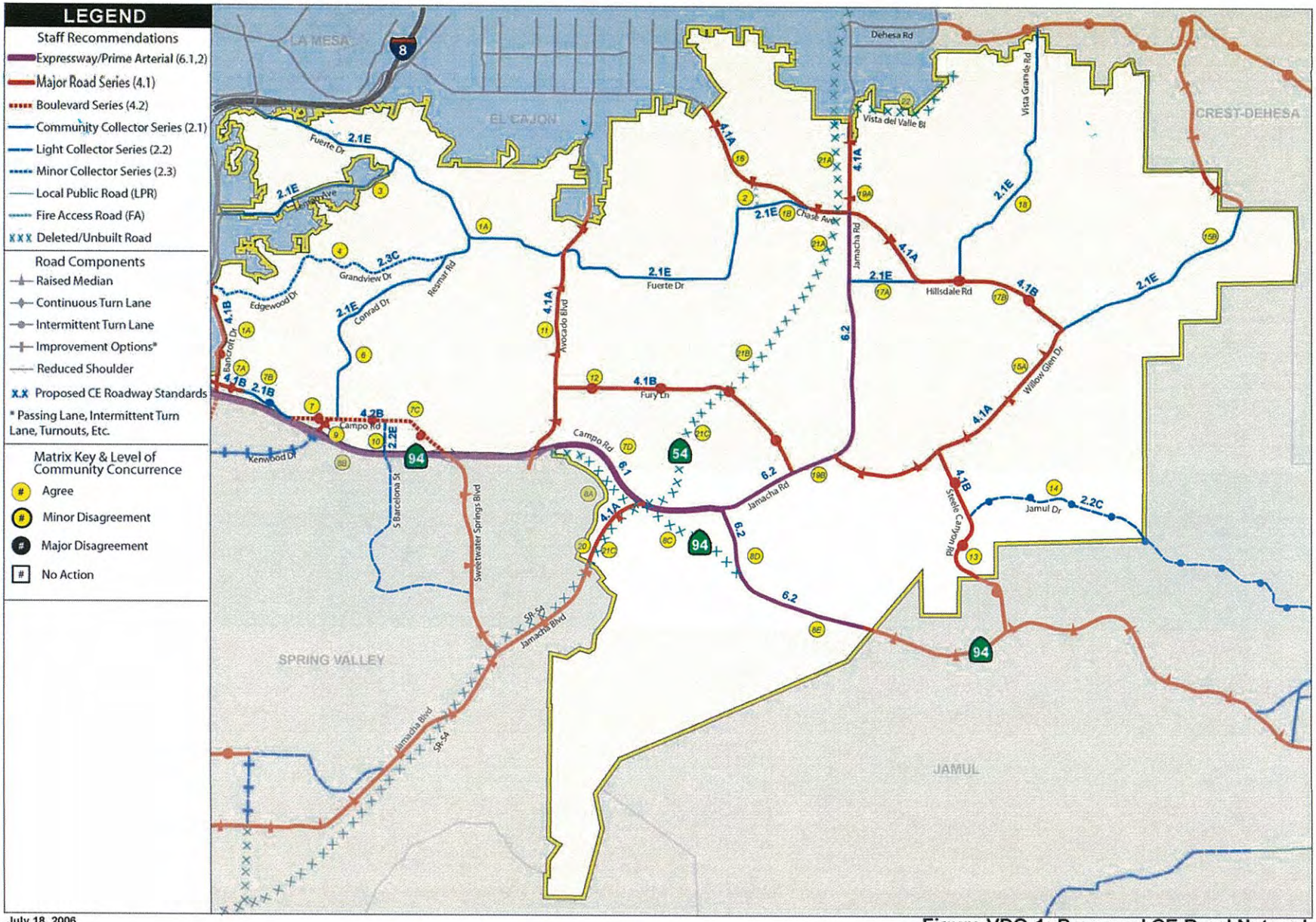
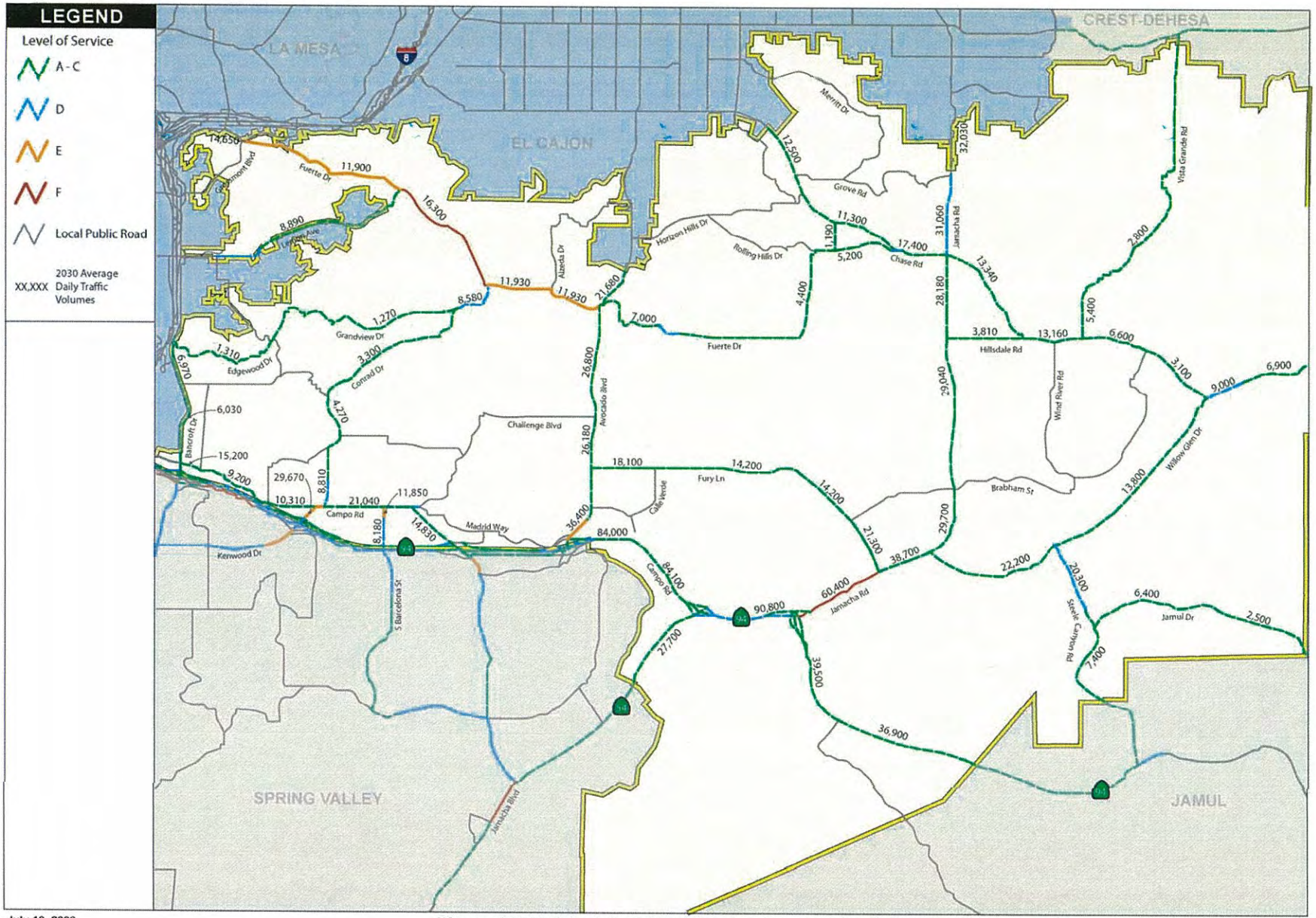


Figure VDO-1: Proposed CE Road Network



July 18, 2006

Figure VDO-2: Level of Service and Average Daily Traffic Volumes - Proposed CE Road Network

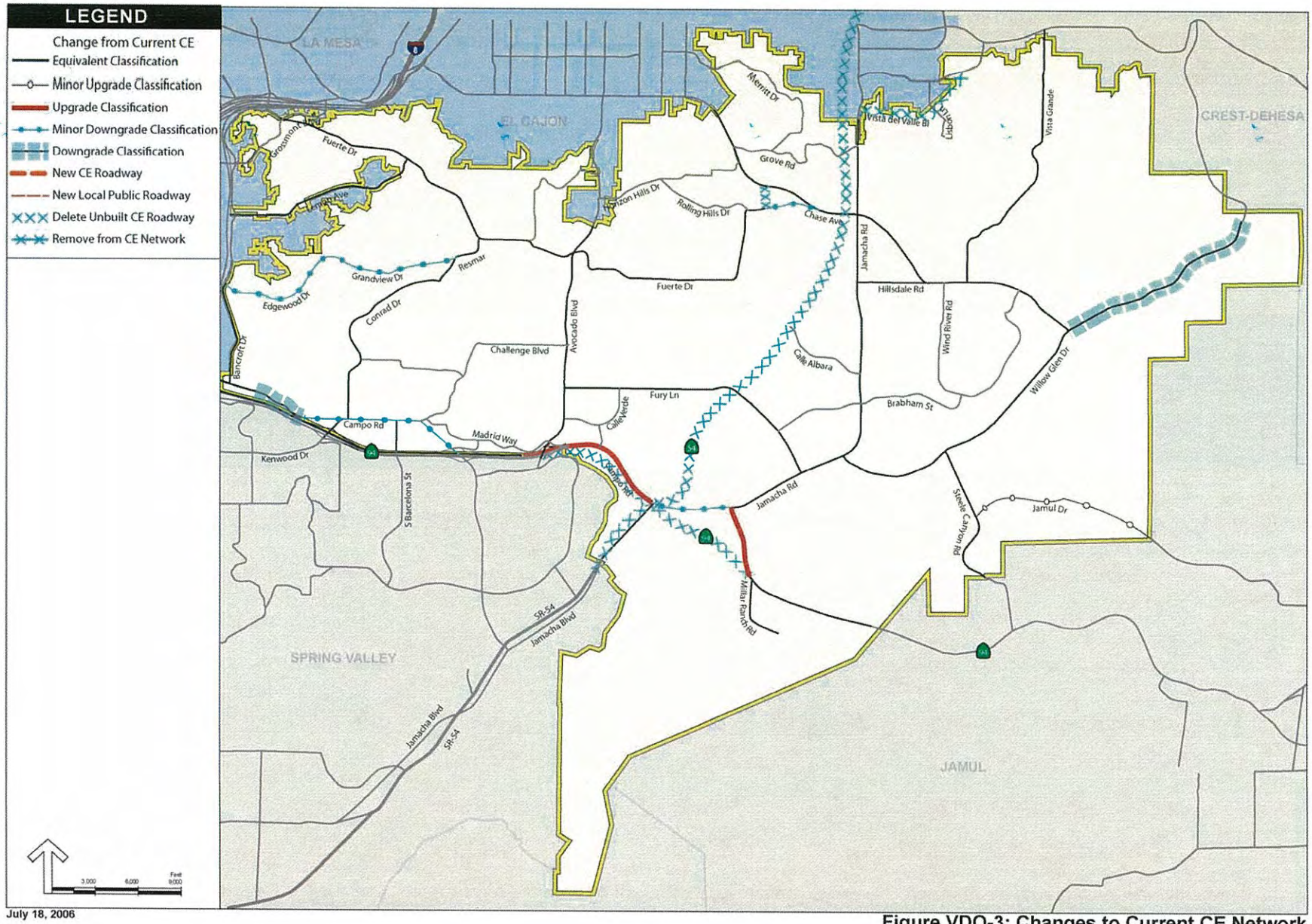


Figure VDO-3: Changes to Current CE Network

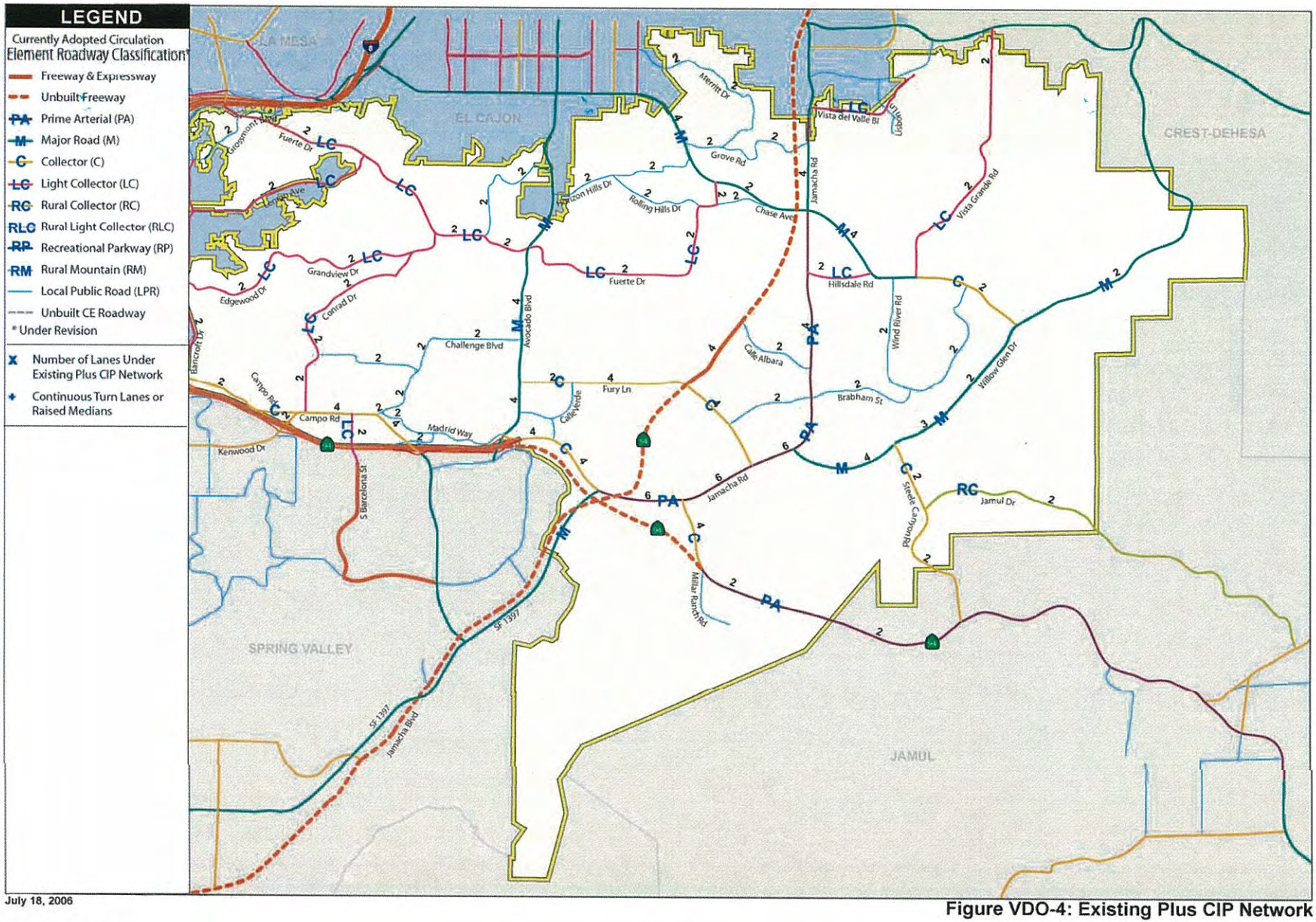


Figure VDO-4: Existing Plus CIP Network

	CE Road Segment	Network Recommendations	Basis for Staff Recommendation
15A	**Willow Glen Drive** Segment: Jamacha Road to Hillsdale Road Existing Condition: 2, 3, and 4-lanes Current Classification: Major Road	**Equivalent Classification** 4.1A Major Road with Raised Median (4+lanes)	• *Road Capacity* – Proposed classification will operate at an acceptable LOS
15B	**Willow Glen Drive** Segment: Hillsdale Road to Camino de las Piedras Existing Condition: 2 and 3-lanes Current Classification: Major Road	**Downgrade Classification** 2.1E Community Collector (2 lanes)	• *Road Capacity* – Proposed classification will operate at an acceptable LOS
16	**Chase Avenue (SA 910.1)** Segment: Jamacha Road to Hillsdale Road Existing Condition: 2-lanes + portion ITL Median Current Classification: Major Road	**Equivalent Classification** 4.1A Major Road with Raised Median (4+lanes)	• *Road Capacity* – Proposed classification will operate at an acceptable LOS
17A	**Hillsdale Road (SC 2030)** Segment: Jamacha Road to Chase Avenue Existing Condition: 2-lanes + Current Classification: Light Collector	**Equivalent Classification** 2.1E Community Collector (2 lanes)	• *Road Capacity* – Proposed classification will operate at an acceptable LOS
17B	**Hillsdale Road (SC 2030)** Segment: Chase Avenue to Willow Glen Drive Existing Condition: 2-lanes + Current Classification: Major Road (Chase Avenue to Vista Grande Road) and Collector Road (Vista Grande Road to Willow Glen Drive)	**Equivalent Classification** 4.1B Major Road with Intermittent Turn Lanes (4+lanes)	• *Road Capacity* – Proposed classification will operate at an acceptable LOS

APPENDIX D

Pertinent Sections of the County of San Diego Noise Element to the General Plan

Part VIII
Noise Element
San Diego County General Plan

Adopted By Board
of Supervisors
February 20, 1975

Revised
December 17, 1980
GPA 80-02

structures.

Action Program 4a2 Maintain a tri-annual review of County ordinances to ensure conformance with the acoustical standards of the Uniform Building Code, the Noise Element, and the noise provisions of the San Diego County Code.

Action Program 4a3 Add a professional engineer to the Building Inspection Department staff with expertise in the area of noise attenuation.

POLICY 4b

Because exterior Community Noise Equivalent Levels (CNEL) above 55 to 60 decibels and/or interior CNEL levels above 45 decibels may have an adverse effect on public health and welfare, it is the policy of the County of San Diego that:

1. Whenever possible, development in San Diego County should be planned and constructed so that noise sensitive areas are not subject to noise in excess of CNEL equal to 55 decibels.

2. Whenever it appears that new development will result in any (existing or future) noise sensitive area being subjected to noise levels of CNEL equal to 60 decibels or greater, an acoustical study should be required.

3. If the acoustical study shows that noise levels at any noise sensitive area will exceed CNEL equal to 60 decibels, the development should not be approved unless the following findings are made:

   A. Modifications to the development have been or will be made which reduce the exterior noise level below CNEL equal to 60 decibels; or

   B. If with current noise abatement technology it is infeasible to reduce exterior CNEL to 60 decibels, then modifications to the development have been or will be made which reduce interior noise below CNEL equal to 45 decibels. Particular attention shall be given to noise sensitive interior spaces such as bedrooms. And,

   C. If finding "B" above is made, a further finding is made that there are specifically identified overriding social or economic considerations which warrant approval of the development without modification as described in "A" above.

4. If the acoustical study shows that noise levels at any noise sensitive area will exceed CNEL equal to 75 decibels, the development should not be approved.

Definitions (applicable to paragraph 1 through 4 of Policy 4b)

"Development" means any physical development including but not limited to residences, commercial, or industrial facilities, roads, civic buildings, hospitals, schools, airports, or similar facilities.

"Noise Sensitive Area" means the building site of any residence, hospital, school, library, or similar facility where quiet is an important attribute of the environment.

Exemption

1. For the rooms in "Noise Sensitive Areas", which are usually occupied only a part of the day (schools, libraries, or similar), the interior one hour average sound level, due to noise outside, should not exceed 50 decibels.

2. For County road construction projects, the exterior noise level due to vehicular traffic impacting a noise sensitive area should not exceed the following values:

   A. Federally funded projects shall comply with applicable Federal Highway Administration Standards.

   B. Other Projects - CNEL = 60 dB(A), except if the existing or projected noise level without the project is 58 dB(A) or greater a 3 dB(A) increase will be allowed, up to the maximum permitted by Federal Highway Administration Standards.

Action Program 4b1 Recommend programs to soundproof buildings or redevelop areas where it is impossible to reduce existing source noise to acceptable levels.

Action Program 4b2 Study the feasibility of extending the application of Section 1092, California Administrative Code dealing with noise insulation standards to single-family dwellings, and incorporating higher standards for reduction of exterior noise intrusion into structures.

Action Program 4b3. Require present and projected noise level data to be included in Environmental Impact Reports. Designs to mitigate adverse noise impacts shall also be used.